

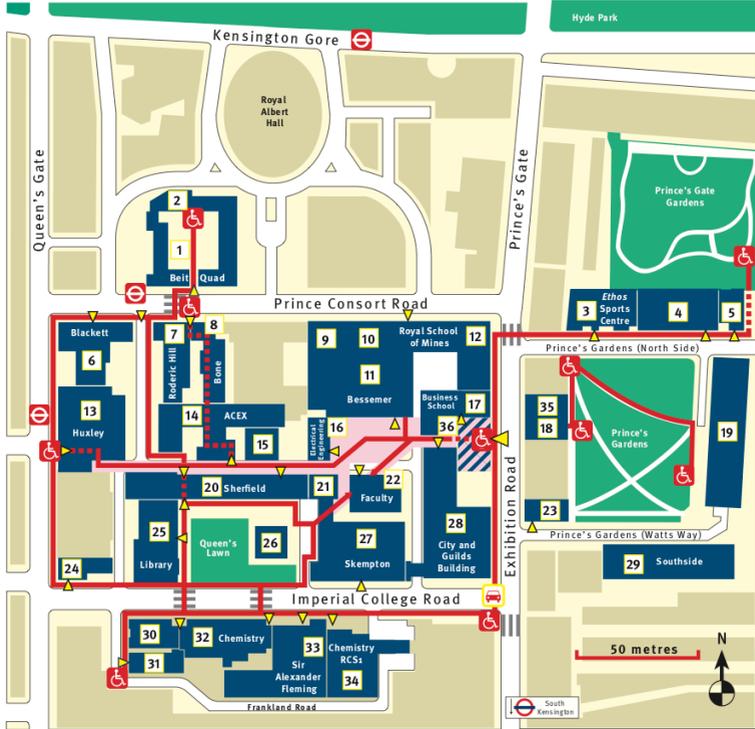


Freshers' Handbook

2021 – 2022

Campus Map

South Kensington Campus



-  Main walkway
-  Main entrance
-  Accessible route
-  Buildings where wheelchair access is not possible at this time
-  South Kensington Underground
-  Bus stops
-  Building entrances
-  Vehicle entrance



- 1 Beit Quadrangle
- 2 Imperial College Union
- 3 Ethos Sports Centre
- 4 Prince's Gdns, North Side
- 5 Weeks Hall
- 6 Blakett Laboratory
- 7 Roderic Hill Building
- 8 Bone Building
- 9 Royal School of Mines
- 10 Aston Webb
- 11 Bessemer Building

- 12 Goldsmiths Building
- 13 Huxley Building
- 14 ACE Extension
- 15 William Penney Laboratory
- 16 Electrical Engineering
- 17 Business School
- 18 53 Prince's Gate
- 19 Eastside
- 20 Sheffield Building Student Hub Conference Office

- 21 Grantham Institute - Climate Change and the Environment
- 22 Faculty Building
- 23 58 Prince's Gate
- 24 170 Queen's Gate
- 25 Central Library
- 26 Queen's Tower
- 27 Skempton Building
- 28 City and Guilds Building
- 29 Southside

- 30 Sir Ernst Chain Building - Wolfson Laboratories
- 31 Flowers Building
- 32 Chemistry Building
- 33 Sir Alexander Fleming Building
- 34 Chemistry RCS1
- 35 52 Prince's Gate
- 36 Alumni Visitor Centre



Karan Obhrai
Vice President

Sebastian Males
President

Welcome to DoCSoc!

Hello and on behalf of the entire DoCSoc committee, a very warm welcome to our society and Imperial's Department of Computing!

DoCSoc stands for the *Department of Computing Society* and is the social arm of Computing at Imperial.

We are run by DoC students, for DoC students, all to make your few years here as enjoyable and rewarding as possible.

We run loads of fantastic social events such as free bar nights in the Union, our formal dinner, *Revel*, cinema trips, go-karting, and a whole bunch more.

As well as that, we also have strong links with industry and host many talks and workshops from our sponsors, which are a great way to learn new skills and get in contact with your future employers.

We are also known for our famous annual hackathon, IC Hack, where developers from Imperial and beyond gather to build really cool technology in 24 hours.

Did we mention there's also a *lot* of pizza?

There's a lot more we do that we can't fit into this short space, so do read the rest of this handbook to find out more.

From all of us at DoCSoc, we hope you have an absolutely terrific time here!

Sebastian Males
President 2021/22

Karan Obhrai
Vice President 2021/22

What's On?

There will be a wide variety of academic, industrial, and social events throughout the academic year. Attached below is a **tentative schedule** for the events we would like to bring to you in October. Please refer to our Facebook page **DoCSoc** and **weekly digest**

Monday	Tuesday	Wednesday
4-Oct	5-Oct  Welcome Fair	6-Oct
11-Oct	12-Oct	13-Oct  Lunchtime: Mums and Dads 2:00pm - 5pm: Sponsors' Exhibition
18-Oct	19-Oct  6:00pm-8:30pm: Netcraft Workshop 8:30pm - 11:00pm: Netcraft Barnight	20-Oct
25-Oct	26-Oct	27-Oct  6:00pm-8:00pm: Palantir Event
1-Nov	2-Nov  6:00pm - 7:00pm G Research Event	3-Nov

emails (sent to your inbox) for the exact event arrangements and updates. Keep reading this booklet to learn more about some of the events we have hosted in previous years.

Wednesday	Thursday	Friday
	7-Oct	8-Oct
 <p>ds hibition</p>	14-Oct	15-Oct
	21-Oct	 <p>22-Oct 7:00pm - 11:00pm: Welcome Bar Night</p>
 <p>n: t</p>	 <p>28-Oct 6:00pm - 7:00pm: IMC Workshop</p>	29-Oct
	 <p>4-Nov 6:00pm - 7:00pm American Express Event</p>	5-Nov

Getting Started

Sometimes, you might find that you need to get in touch with somebody outside of your course, perhaps with personal issues, issues about the course, or just general queries you would like to know the answer to. There are various avenues and members of the department you can get in touch with if this is the case.

Mums & Dads

You're all each assigned two non-fresher undergraduate students as your "parents". There will be a lunch at the start of term where you can talk to them and from then on, you can go to them for advice on the course, or just have a chat with them if you want to.

It's a good idea to keep in touch with your parents as they can give you valuable information about the course and the university.

Year Reps and Dep Reps

The Year Representatives (known as Year Reps) are individuals from each year group who've been elected by that same year group to represent them. They're there to advocate on behalf of their electorate to staff. Department Representatives (aka Dep Reps) do a similar job but throughout all years. In the past, Year Reps and Dep Reps have managed to extend deadlines for coursework when there has been too much at once, and talked to lecturers who have forgotten to upload documents

for students. Year Rep elections happen in October, so if you are interested in making a difference, consider applying!

Tutors

Two professors will be assigned to you: one as a Personal Mathematics Tutor (PMT), and another as Personal Programming Tutor (PPT). They oversee your tutorial sessions, and one will also be your **personal tutor**, who you will have for the duration of the course and who you should go to if you are having any problems or require advice (e.g. illness, mitigating circumstances, harassment).

UTAs

Undergraduate Teaching Assistants, also known as UTAs, are older students assigned to you for your tutorial sessions. You will have three in total, for Programming, Logic, and Maths Methods. They will mark some of your assignments, and you will go through solutions together once a week in tutorials. Since UTAs are fellow students, they are happy to give advice about the course or university life.

Senior Tutor

Dr Faraz Janan is the acting senior tutor for all year groups, including first year. You should go to him if you are having any problems or require advice but do not want to, or can't, see your personal tutor. He can usually be found in Room 373 of Huxley, or you can email her at doc-senior-tutor@imperial.ac.uk.

Study

At Imperial, we play hard but we also work hard. If you wish to maximise your grades here, follow these top tips for success.

Pre-read lecture notes

Going through notes before lectures increases how much you will understand during the lecture and how much you will remember for the exams; this is especially important if you are having difficulty understanding lectures.

Go through past papers as soon as possible

There are no official solutions to Computing past papers so you'll have to create most of them yourselves - this takes time, but in the end is more rewarding as you get the satisfaction of understanding the problem fully.

Sit near the front of the lecture theatre

This helps to stop you from going on your laptop and/or phone during lectures and tutorials, making it easier to pay attention.

Avoid using laptops in lectures and tutorials

For the exact same reasons as above, you'll be tempted to go on it and not focus on the lecture; you're no longer at school and won't be punished for doing so.

Start assignments as soon as they are given

This stops you doing your work at the last minute which often leads to bad and/or incomplete coursework. Students often underestimate the time it takes to complete assignments, so starting it early helps you gauge how long it is going to take. As a rule of thumb, give yourself at least 1.5x how much time you think you need.

Ask the lecturer to clarify material you do not understand

If you don't understand a concept then ask the lecturer about it during, or immediately after the lecture. Lecturers are generally very approachable and encourage students to ask questions - they will not expect every student to understand every idea instantly.

Don't immediately use the model solutions

Your exams will require you to think on your feet - this is an integral skill you will have to learn here. However, it is still a skill — you will get better at it with practice. The best way of doing this is by completing the tutorial sheets without help, and then reviewing the lecturer's answers against your own. It may take some time for you to get into the swing of studying at university (which is totally different to studying at college or school), so don't worry if you don't adjust straight away. Just remember that by following these tips, your university life will become a lot less stressful.

Friends

Moving to university and knowing nobody can be pretty tough in the beginning.

Living in halls and joining societies are the easiest ways to get to know people at Imperial because there are loads of social events organised for freshers and things going on all the time.

Making friends on your course can be a little bit more tricky because it's quite hard to just approach somebody in a lecture, for example. So here are some tips to help you start:

Come to DoCSoc events

We will be running social events all year which include our bar nights, movie nights, theatre trips and more. During Freshers Fortnight, we will have our Mums & Dads lunch where you will be assigned a family, and a start of term bar night. Even if you think you have no one to come with, you should definitely still go because you will leave with people to attend the next one with!

Visit us at our stall during the Welcome Fair

This is an ideal time to find out more about what we will be doing this year.

Spend your study hours wisely

There's plenty of opportunity to make friends during study hours! You will spend a lot of time each week with your PPT group so it's an ideal time to get to

know each other. Plus, it will make these hours a lot more enjoyable. Go to your course tutorials and discuss questions with others: it's both a good way to learn and a chance to talk to coursemates.

Labs are not just for your timetabled sessions, you will see people in there doing their work, and hanging out there is one of the easiest ways to make friends within the department. At the very least attend the timetabled labs because your coursemates will be there too! Outside of DoC, you can join societies run by the Imperial College Union. Clubs are another place where you can find people to talk to and spend time with. We hope you went to the **Welcome Fair on Tuesday 5th October**; and have checked out the clubs you would be interested in joining.

Even if you do not go to society meetups very often, they are a good way to meet likeminded people. Finding people you get along with is often as good as an investment as studying, so take the time to do it! You will likely find numerous groups of people you will want to spend your time with during the first few weeks. Most people then spend their time with the group they get along with the best after that period. Remember, everybody is in the same boat upon starting university, so do not feel like you are the only one if you are feeling left out - the first few weeks are a great time to talk to absolutely anybody on campus so don't be shy!

Courses

If you are on the four year MEng course, you are required to get an overall grade of 60% or higher during the second year to remain on it. If you are on the three year BEng course, you can switch to the MEng course during the first few weeks of third year provided you meet the above requirement.

There are seven specialisms to the MEng course: Computational Management, Artificial Intelligence, Computation in Biology and Medicine, Software Engineering, International Programme of Study, Games, Vision, and Interaction, and Security and Reliability. You will be required to take various optional modules during the course to graduate with one of these degrees.

To qualify for the International Programme, you will need to submit a form for it during second year - there will be an email sent to you during this time regarding it. Spaces are limited and applicants are usually chosen based on their academic performance. For the programme, you spend your third or final year in an institution overseas. Assessment during this time abroad is based on your performance in project work, coursework, and examinations at their receiving institution. If you are on the four year MEng course and wish to drop down to a three year course, this is also possible. You should speak to the head tutor or your personal tutor as soon as possible if this is the case so that they can help ensure you are making an informed decision.

Disability

If you have any kind of disability, see the Disability Advisory Service as soon as possible. They will discuss your disability with you and ask for proof you have it. In the event your proof is insufficient, or you do not have any, you will need to undergo a professionally administered test to prove it. For instance, if you claim to have dyslexia then a chartered psychologist will test you. You will typically not need to pay for the first test, but there will be a penalty cost if you miss your appointment and still wish to proceed.

When the Disability Advisory Service are convinced of your disability, you will then be able to contact the department's Disability Officer. There will be a meeting between various staff members on how the department will accommodate your needs. You will then be informed of the conclusion of the meeting. For example, if you have dyslexia then you will typically be given extra time in all your examinations.

Please note that your first exam will be half way through the first term, which is why it is important to notify the college about your disability as soon as possible. You will also be able to apply for the Disabled Students' Allowance. What you will get from this will vary according to your disability, but it will usually be a sizeable amount of support from the government. For instance, if you are dyslexic you will receive a cheap laptop and a dictaphone, amongst other things, if you do not already have them.

Fun

DoCSoc isn't all about ones and zeroes! We're also responsible for making your time at Imperial College London as enjoyable and rewarding as possible.

We achieve this goal by hosting a wide range of exciting social events every single year.

Bar Nights

One of our most popular recurring events, our free bar nights are known all across campus. Whether you drink or not, come and join us for an unforgettable evening of entertainment and socialising.

Outings in London

Whether you like cinema, theatre, ice skating, go-karting, paintballing (or all of them!) we always have something for you! We organise regular non-drinking social outings throughout the year.

International Trip

A few years ago, we took a bunch of our members all the way to Prague! This was a brilliant way to explore a new country with friends and coursemates. Stay tuned for our destination this year!

Much, much more...

The fun doesn't stop there! Every term we put on a whole range of new and exciting events. In the past, we have held mixer events with UCL and King's College tech societies and taken part in a pie eating contest to name just a few!



IC Hack

IC Hack is our biggest annual event, and is the largest student-run hackathon in the country.

In 2020, over 450 budding hackers, ideators, and designers came together at Imperial to collaborate and bring their ideas to life in just 24 hours.

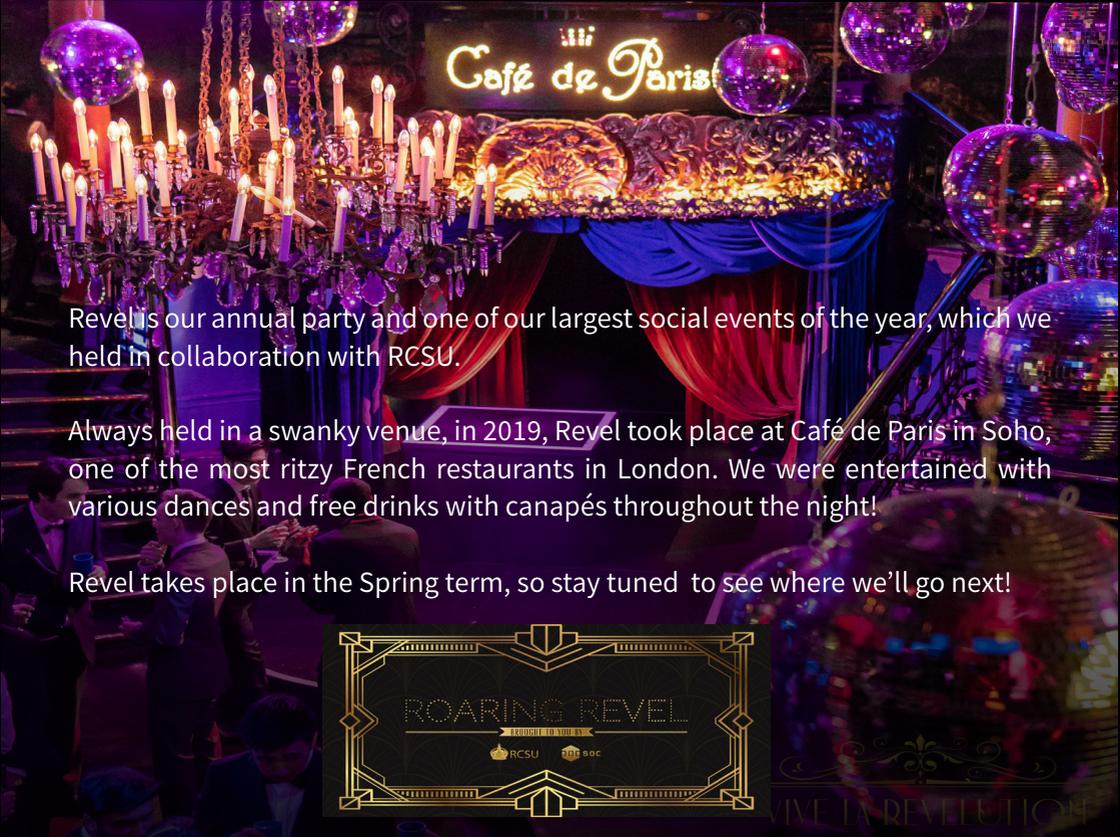
Not only did people hack, but our generous sponsors also ran events from workshops to free drinks at the Union. There was karaoke, free food, and copious amounts of swag. At the end of the weekend, 10 of the best teams were awarded prizes, from Sennheiser headphones to Play Stations 4.

Due to the ongoing COVID-19 outbreak, we could not host IC Hack 21, but we're hoping to bring IC Hack back at the start of 2022. Stay tuned and don't miss out as tickets go quickly!



IC HACK 22





Revel is our annual party and one of our largest social events of the year, which we held in collaboration with RCSU.

Always held in a swanky venue, in 2019, Revel took place at Café de Paris in Soho, one of the most ritzy French restaurants in London. We were entertained with various dances and free drinks with canapés throughout the night!

Revel takes place in the Spring term, so stay tuned to see where we'll go next!





End of year Dinner



DoCSoc's End of Year Dinner is held in the summer term, where we celebrate our achievements during the year with a posh dinner at a fancy venue, finished off with free drinks and a party.

The Dinner was a new addition in 2017 to our ever-growing list of social events, and it's proved to be a huge success, creating some unforgettable memories.

Held at Bluebird Chelsea in 2019, the evening started off with a champagne reception, followed by a delicious three-course meal. To end the night, we had an open bar and danced the night away.

The Dinner takes place in the Summer term towards the end of the year, so make sure you don't forget!



Meet the Committee

DoCSoc is made possible by a team of dedicated, elected student volunteers who work tirelessly to ensure that the year is packed full of exciting and useful activities!



Sebastian Males
President



Karan Obhrai
Vice President



Panayiotis Gavriil
Secretary



Chloe Lau
Treasurer



Alyssa Renata
Academic Events Coord.



Noor Sawhney
Social Events Coord.



Lukasz Jakubowski
Events Officer



Ioana Mihailescu
Events Officer



Dyuti Chakraborty
Events Officer



Stefan Radziuk
Hackathons Coordinator



Ishita Mahatme
Marketing & Publicity Officer



Apoorva Verma
Webmaster



Rania Rusly
Sponsors' Liaison



Shashwat Kansal
Sponsors' Liaison



Daniel Ababei
Software Dev. Coord.

Our Sponsors

DoCSoc is made possible, in part, by the generosity of our sponsors, who not only provide us with fantastic events, but also the funding for recreational activities in the department. This year, we are sponsored by these fantastic companies in the following pages in the handbook. Be sure to come to the Sponsors' Exhibition to have a chat with our sponsors. Bring Lots of Questions!



American Express

GOLD

Why American Express?

There's a difference between having a job and making a difference.

American Express has been making a difference in people's lives for over 160 years, backing them in moments big and small, granting access, tools, and resources to take on their biggest challenges and reap the greatest rewards.

We've also made a difference in the lives of our people, providing a culture of learning and collaboration, and helping them with what they need to succeed and thrive. We have their backs as they grow their skills, conquer new challenges, or even take time to spend with their family or community. And when they're ready to take on a new career path, we're right there with them, giving them the guidance and momentum into the best future they envision.

Because we believe that the best way to back our customers is to back our people.

The powerful backing of American Express.

Don't make a difference without it.

Don't live life without it.

Rebellion Defence GOLD

Rebellion Defence is a unicorn start-up, which builds products for the defence and security of the United Kingdom, the United States, and our allies.

We are seeking extremely talented software engineers who are passionate about delivering modern, life-changing products to defend democracy. We care deeply about embracing modern engineering practices to deliver value swiftly.

Rebellion is home to Silicon Valley engineers from Amazon, Google, Netflix, and Twitter, among others, who have created products and services that support billions of customers. Our advisers include those who have served at the forefront of the United Kingdom's national security and shaped the nation's understanding around the evolution of cyber threats.

Rebellion builds a variety of product lines for our engineers to work on, including:



- Comprehensive Battlespace Awareness - provides a holistic view of the threat environment and assessment of adversary capabilities
- Autonomous Mission Execution - enables the orchestration and execution of automated operations across distributed hardware and software platforms
- Cyber Readiness - strengthens cyber readiness for critical military assets against adversarial attack

Software engineering tasks will range from building the foundational infrastructure for our large-scale cloud model training, to writing performance regression suites.

We're looking for individuals with strong programming skills and depth of knowledge in at least one software engineering toolchain and the ability to navigate a Unix shell environment. If you're excited by the prospect of working with intense, knowledgeable, and motivated individuals, then Rebellion is the place for you!

To find out more about Rebellion, visit: <https://rebelliondefence.com/>



Netcraft

GOLD

Netcraft is world-leading internet security services company with offices in London and Bath, providing services to internet infrastructure, financial services, large enterprises, and governments in over fifty countries, including six of the world's ten largest companies by market capitalisation and eleven of the top fifty banks. In the UK, our services are used by the British Government and seven of the eight constituents of the FTSE-350 Banking index.

Netcraft is positioned at the epicentre of the battle against cybercrime and, through its anti-phishing community, has detected and blocked over 112 million unique phishing attacks to date. Our phishing feed is consumed by all widely used browsers. We currently perform takedowns for three of the ten most phished companies on the internet and in aggregate against around 30% of all phishing attacks, running at around one takedown per minute. Over the last year we completed 3 million takedowns of over 80 different types of cybercrime.

We're looking to recruit high-performing software developers to join our team, either in Bath or London. We welcome internship applications from first and second years, as well as applications for industrial placements and graduate opportunities.

Projects involve working on a range of commercial services extending Netcraft's network exploration and internet security services.

Important attributes in candidates include:

- A broad knowledge of internet technology, together with an attention to detail, and a desire to find things out empirically rather than rely on conjecture.
- A keen interest in network security, data mining & machine learning, or web-based user interfaces.
- Demonstrable programming ability and experience
- Prior experience with any of MySQL, Perl, Python, PHP, Git, Puppet, Amazon Web Services, JavaScript, CSS, or Unix systems programming is useful but not essential.

Apply by emailing your CV to cv@netcraft.com.



G-Research

GOLD

G-Research is Europe's leading quantitative finance research firm. We hire the brightest minds in the world to tackle some of the biggest questions in finance. We pair this expertise with machine learning, big data, and some of the most advanced technology available to predict movements in financial markets.

To find out more please visit; <https://www.gresearch.co.uk/about/>

optiver



Optiver

GOLD

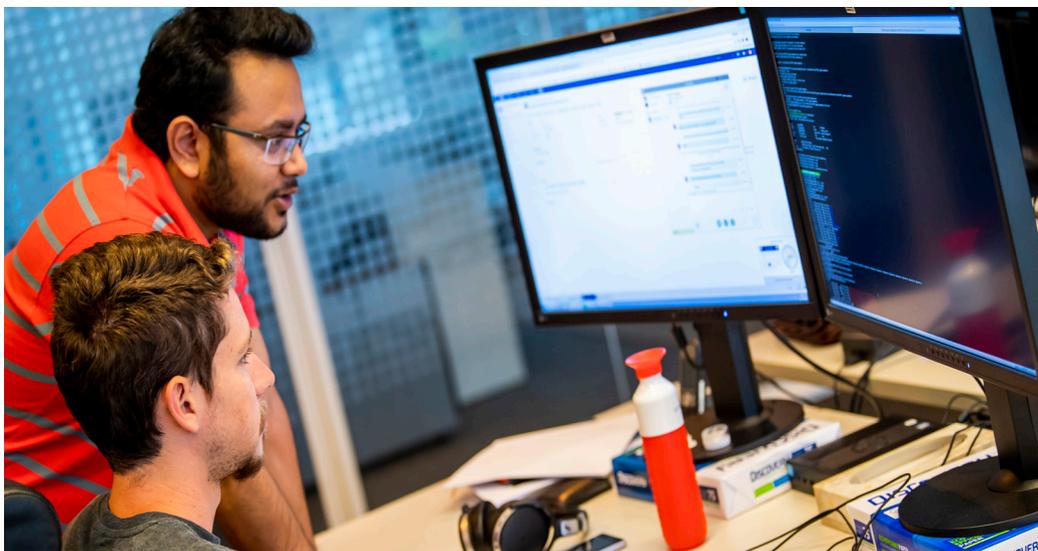
Enjoy building exciting and competitive technology? Want to solve complex problems and have direct impact from day one? Do you like working with dynamic people in an international environment?

Start your career with Optiver! Being a global leader in market marking, we build and maintain low latency trading systems that respond to market events in nanoseconds. As a leading technology-based market maker and liquidity provider, we are committed to improving the market by providing efficiencies for end investors. Using our own capital at our own risk, we trade thousands of financial instruments on more than 50 exchanges around the world, contributing

to healthy markets and putting us at the forefront of technology and trading.

At Optiver, engineering is at the core of our trading strategies. Our systems have to be fast, reliable and precise. Our Engineers continually refine, store and analyse hundreds of terabytes of data, enabling us to automatically price large, diverse sets of financial instruments with extremely low error tolerance.

Check out our careers page for details of our Software Engineering Internship (Amsterdam) and Graduate Software Engineering (Amsterdam and London) opportunities! If you have any questions, please feel free to reach out to Jessica Lilley at jessicalilley@optiver.uk





Next Jump

GOLD

Next Jump has been recognised as one of three Deliberately Developmental Organisations (DDO). We are on a mission to create high-performing workplace cultures across the globe. People development is at the heart of everything we do. We follow this simple mantra:

Better Me + Better You = Better Us.

Next Jumpers improve themselves at work (Better Me) and use that knowledge to help others (Better You), together creating a better world (Better Us).

Headquartered in New York, based in London, our cutting-edge e-commerce platform is used by 30 million employees across Fortune 1000 companies and generates \$2 billion in sales every year. With our HR technology, such as DevGPS and Feedback App, we help organisations from the likes of JP Morgan Chase, the Military, through to schools/charities, build adaptive learning teams.

The world's biggest problems can't be solved with conventional, incremental ways of thinking. Therefore, we focus on developing our employees, starting from the moment they join the company. Next Jump has engineered the fastest career development path for graduates, creating an accelerated opportunity to

become Partners. As a Partner, you will have access to our premium Leadership Training Centre in London, where you will build healthy habits and train unfiltered communication. Additionally, you will learn to take risks and bold actions. We believe that these are essential to collaboration and engineering creative solutions, in order to tackle the toughest problems.

At Next Jump, you can expect regular coaching from top leaders within the organisation, including our co-CEOs, to propel your growth personally, as well as technically. As a Partner, you will be trusted at the highest level, being given responsibility, autonomy and resources to make real change not only at Next Jump, but also in the community and beyond.

We're looking for driven and entrepreneurial individuals to become our Partners! If you're looking for a 'not-your-typical graduate job/internship', then we would love to meet you!

Bloomberg

Engineering

Bloomberg

SILVER BESPOKE

Bloomberg unleashes the power of information and technology to bring clarity to a complex world. Global customers rely on us to deliver accurate, real-time business and market-moving information that helps them make critical financial decisions. In a career at Bloomberg, you'll play a vital role in making it happen.

Our engineers and data scientists are dedicated to building and advancing new solutions for the Bloomberg Terminal and our wider suite of products. Our systems make an immediate impact on global markets. Our 5,500+ engineers are dedicated to building and advancing them. Together, we roll out new software daily that integrates seamlessly — and immediately — into our clients' workflows. We're looking for the brightest minds to come work with us and offer internships, placements and graduate positions.

Learn more about the Engineering Department at Bloomberg,
<https://www.bloomberg.com/careers/technology/engineering/>

Check out our Tech at Bloomberg
<https://www.techatbloomberg.com/>

DRW

DRW

SILVER BESPOKE

DRW is a diversified trading firm with decades of experience bringing sophisticated technology and exceptional people together to operate in markets around the world and across many asset classes. We value autonomy and the ability to quickly pivot to capture opportunities, and so we operate using our own capital and trading at our own risk.

Headquartered in Chicago with offices in the U.S. and Canada as well as Europe and Asia, we trade all the things you'd expect from a leading firm, including Fixed Income, Equities, FX, Commodities and Energy. We also have leveraged our expertise and technology to expand into three non-traditional strategies: real estate, venture capital and cryptoassets.

We operate with respect, curiosity and an open mind, and the people who thrive here share our belief that it's not just what we do that matters but also how we do it. It's a place of high expectations, integrity, innovation and a willingness to challenge consensus. DRW is hiring. Learn about our full-time and internship opportunities at <https://drw.com/oncampus>.



WINTERMUTE

Wintermute

SILVER

Wintermute is one of the largest algorithmic trading firms in digital assets globally. We manage hundreds of millions in assets and trade more than \$5B+/day across dozens of different trading platforms. Culturally, we combine 1) the highest standards of technological and trading sophistication from traditional financial markets and 2) technology startup nature, as we are moving very fast and empowering people to act like owners.

Headquartered in London whilst also having a global office in Singapore. We are always seeking outstanding students with a passion for technology and trading to apply for roles within our Algorithmic Trading, Technology and DeFi teams.

At Wintermute, you will have the unique opportunity to work on very interesting projects and get the level of responsibility and ownership that would take 5-10 years to get in a traditional trading company/Bank/Hedge Fund. At the same time, you will have the opportunity to join one of the strongest, most successful, and highest potential start ups in Crypto; with the added incentive of working in a cool “Sci-Fi” themed office, access to free food of your choice and access to our office gym!

Begin your career at Wintermute and apply online directly on our internship/graduate vacancy Wintermute ([lever.co](https://jobs.lever.co))

<https://jobs.lever.co/wintermute-trading>



jumptrading

Jump Trading

SILVER

At Jump Trading, you will find a group of driven, dynamic people focused on researching, interpreting and capitalizing on the global trading markets. Headquartered in Chicago since 1999, Jump has expanded over the years as a global operation with offices in London, Bristol, Amsterdam, Singapore, Shanghai, Gurugram, New York, Hong Kong, Paris, Austin, and Sydney.

We are a privately-funded company that is owned and managed by trading professionals who have set high standards around trust and leadership in a quantitative trading environment. We trade across all major asset classes on multitudes of electronic exchanges around the world, with a strong track record of success through all market conditions.

Our casual atmosphere, culture of continuous learning and innovation, and philosophy of rewarding outstanding performance based on merit rather than tenure or title has attracted brilliant people from around the world. We value our people at Jump and pride ourselves on being a diverse set of individuals. Employees have notable backgrounds from the trading industry, Silicon Valley, tech companies, startups, world renowned research labs, top tier Universities, and PhD programs.



TWO SIGMA

Two Sigma

SILVER

Two Sigma is a financial sciences company. We combine rigorous inquiry, data analysis, and invention to solve the toughest challenges across financial services. We're looking for people who see beauty in data and the possibilities it reveals. Researchers who see connections and patterns in unexpected places. Engineers who build tools that channel massive amounts of data into insights. And experts across business disciplines to help solve the toughest challenges in investment management, insurance, market-making, private equity, and venture capital. At Two Sigma, we're proud of our company culture: a collaborative and diverse environment that challenges and empowers our employees to find smart solutions to the world's hardest problems. We want to help everyone here grow and get better, so we offer a myriad of internal programs and initiatives that encourage teaching, growth and mobility. growth, and mobility.

Our engineers build the tools and technologies that enable us to scale. Spend the summer working in a creative and hands-on environment that gives you the freedom to innovate, explore, and dig into unique and complex challenges.

Headquartered in New York City, we also have global offices in Houston, London, Shanghai, Tokyo, & Hong Kong. Begin your career at Two Sigma and apply online at twosigma.com/careers.

ARCTIC LAKE

Arctic Lake

SILVER

At Arctic Lake, we build and operate smart trading platforms with state-of-the-art, ultra low latency, highly reliable technology.

Our capital market experience, along with our refined proprietary core technology, make us highly appealing and effective to our vast range of financial services clients. Since launching in 2015, Arctic Lake has remained privately owned, meaning we can focus on long-term growth and stability and maintain our agile and flexible structure.

Our developers are an elite bunch, who can approach problems with a unique brand of creativity. We have achieved incredible things so far with our small team, and we're looking to make space for new, fresh and innovative voices. We have opportunities for graduates, as well as an industrial placement scheme for incoming fourth-year students. If you come to work for us, you'll be based in our London HQ and will jump straight in to exciting and substantive work from day one. We let our interns choose what they work on, so you have the opportunity to shape your own experience.

Trust and flexibility rule our company culture, and we believe that given the room to explore, our team can accomplish anything.

Citadel

SILVER

Citadel is an investor in the world's financial markets and one of the world's alternative investment managers. For over a quarter of a century, we have sought to deliver industry-leading investment returns to clients. We help clients' capital fulfill its potential across a range of markets and investment strategies, including fixed income & macro, equities, quantitative, commodities and credit. Citadel Securities is a leading market maker, delivering an array of fixed income and equity products to banks, broker-dealers, government agencies, corporations, insurers, and sovereign wealth funds. Through innovation and efficiency, we provide liquidity with the goal of driving price discovery and making markets more competitive, open, and transparent.

Citadel and Citadel Securities are seeking intellectually curious students to apply for Quantitative Research, Software Engineering and Investment & Trading roles. Please join us across our virtual events series to learn more about our team and firm, as well as our full time and internship opportunities!

Face some of the most complex challenges of our time and test the limits of your talents alongside highly skilled teammates. We give you more responsibility and back you with greater resources because we realize your potential for greatness.

Open positions, unparalleled opportunities, apply now at: <https://www.citadel.com/careers/students/>.

PDT PARTNERS

PDT Partners

SILVER

PDT Partners has had significant success over the past 25+ years as a quantitative investment manager by using a scientifically rigorous approach to develop and deploy trading strategies. Our technology team consists of software, systems and data engineers. We're looking for bright and uniquely excellent engineers to be part of a talented and creative community. You may be able to help us as we strive to be one of the best investment managers in the world.

We're also committed to being a fantastic place to work. We have an open, supportive, and collaborative culture. Prior experience in finance isn't expected, but we do look for intellectual curiosity that runs deep. Our technologists work together in small teams on challenging real-world problems, contributing to our technology-critical algorithmic trading business. We build applications using C++, Python and Java, as well as the latest cloud and open source technologies.

If you are a MEng Computing Student looking for a 6-month Industrial Placement please send your CV to imperial2022@pdtpartners.com

GRAPHCORE

Graphcore

SILVER

Who are we?

Founded in 2016 by Nigel Toon and Simon Knowles, Graphcore is a semiconductor scale-up. Our teams have created a completely new processor designed for AI compute – the Intelligence Processing Unit (IPU). Over the last five years we've scaled rapidly, now employing over 600 people globally with our Headquarters based in Bristol.

What do we do?

OUR IPU LETS INNOVATORS CREATE THE NEXT BREAKTHROUGHS IN MACHINE INTELLIGENCE

Graphcore has created a completely new processor, the Intelligence Processing Unit (IPU), specifically designed for artificial intelligence. The IPU's unique architecture means developers can run current machine learning models orders of magnitude faster. More importantly, it lets AI researchers undertake entirely new types of work, not possible using current technologies, to drive the next great breakthroughs in general machine intelligence.

We believe our IPU technology will become the worldwide standard for artificial intelligence compute.

Opportunities

We have some great opportunities, which are open to all year group students. learning into practice, with a 10-week summer internship.

Internship applications for our Bristol office open early 2022

Register your interest, please visit: <https://www.graphcore.ai/careers>
If you have any questions, please email: students@graphcore.ai



Jane Street

SILVER

Jane Street is a quantitative trading firm with offices worldwide. We hire smart, humble people who love to solve problems, build systems, and test theories. You'll learn something new every day in our office—whether it's connecting with a colleague to share perspectives, or participating in a talk, class, or game night. Our success is driven by our people and we never stop improving.

As a Software Engineering intern, you'll learn how we use OCaml (our primary development language) in our day to day work, and gain exposure to the libraries and tools that are foundational to our internal systems.

During the program you'll work on two projects, mentored closely by the full-time employees who designed them. Some projects consider big-picture questions that we're still trying to figure out, while others involve building something new. Your mentors will work in two distinct areas, so you'll gain a better understanding of the wide range of problems we solve every day, from machine learning to systems administration to programming language design.

If you'd like to learn more, you can read about our interview process:

<https://blog.janestreet.com/applying-to-jane-street/>

meet some of our newest hires:

<https://www.janestreet.com/join-jane-street/get-to-know-us/>,

or get a sense of what our most recent intern projects looked like:

<https://blog.janestreet.com/what-the-interns-have-wrought-2021/>



IMC Trading **BRONZE BESPOKE**

At IMC, technology is not a department; it's at the heart of everything we do. Since the late 1980s, we've pioneered the use of technology to advance the development of market making and low-latency trading. Today, our technologists work alongside IMC traders in multidisciplinary teams to push the limits of possibility, and then look beyond. In our fast-paced environment, short feedback loops mean projects worked on in the morning can enter production the next day.

As a **software or hardware engineer intern**, our 12-week internship is your chance to learn what it means to be an engineer in a real-world environment. It's about much more than just writing code: you'll gain insight into algorithmic complexity and data structures or IMC's FPGA development process, get to know IMC's unique business model and build valuable connections with our trading and technology teams. Where you go from here is up to you – the majority of our interns secure a graduate position before the end of the programme.

As a **graduate software engineer**, your IMC journey begins with a seven-week global trading traineeship led by our seasoned traders and technologist, during which you'll link up with

graduates from all three IMC regions.

You'll then continue your training in your local office for a further two months, working alongside a seasoned software engineer. What happens next is up to you - you could find yourself working on software, hardware, advanced networks, algorithms or anything in between. We'll help you to find your own niche as you use your creativity to problem-solve and spot new opportunities.



Palantir

BRONZE BESPOKE

Palantir is a software company that builds the world's leading software for data-driven operations and decision-making.

More than 2500 Palantir employees work in offices around the globe, including in Palo Alto, Washington D.C., New York, London, Paris, Sydney, Tokyo, Abu Dhabi, and São Paulo. Palantir was founded in 2004 by three software engineers and a philosopher to help intelligence agencies make better use of data while preserving privacy and civil liberties. Our first product was Palantir Gotham, a platform that helps users find bad actors hiding in complex networks, such as terrorist cells, trafficking rings, and money laundering schemes. Our early success in government led us to work with commercial companies, international governments, and nonprofits. In 2014, we introduced Palantir Foundry, a platform that brings organizations together around data to transform how they operate. Today, we develop long-term partnerships with organizations, working together to help them realize the value in their data. Our partnerships power critical operations for defense and civilian government agencies worldwide and commercial companies in dozens of industries. We also donate our software and services to select nonprofits dedicated to improving human lives.

To learn more, visit www.palantir.com



Capchase

BRONZE BESPOKE

Capchase is an early-stage startup radically transforming how companies fund their growth by allowing them to receive upfront access to their forward-looking revenues. With our unique alternative financing model, we enable founders to get the funding they need to grow, when they need it and without giving up equity in the process.

With headquarters in Madrid, New York and London, our team has more than 23 nationalities and work all around US and Europe.

We've delivered over \$800M in funding to customers around the world so far, and have grown our team to 75 since the beginning of 2021. Capchase helps recurring-revenue companies scale faster through its finance tools. Our core product - Revenue Financing - provides non-dilutive capital to companies, bringing future expected cash flows to the present day - thereby extending an immediate line of credit. With our unique alternative financing model, we enable founders to get the funding they need to grow - when they need it and without giving up equity in the process.

We are disruptive and always busy building, and we are looking for the best talent around the globe to help us accomplish our mission while delivering value. You can learn more about us in our web: <https://www.capchase.com> and about our career opportunities in: <https://www.capchase.com/careers>

O R I G I N

Origin

BRONZE BESPOKE

Origin's software has transformed the debt capital markets, completely streamlining the way companies and investment banks work together to raise capital. Having launched just over 6 years ago, Origin is now used by over **20 investment banks** and **90 borrowers** in over **50 cities** worldwide. Our clients include some of the largest investment banks and borrowers globally, including **Barclays, Citi, and Telefonica**. Origin's ambition is to establish a digital, end-to-end, straight-through-processing issuance platform for international fixed-income capital markets. We secured our Series A funding round in 2020, lead by **Clearstream** and the **Luxembourg Stock Exchange**.

At Origin, you'll get to work with exciting modern technologies: **Django** to write our backend services, **Angular11** to create our web app, **Kubernetes** and **Docker** to schedule and run our services, and **AWS** to run our infrastructure.

Origin is looking for smart and driven Imperial computer science and engineering graduates to join our team as we rapidly grow our product offering in the following roles:

Graduate Product Manager 2022- You'll be responsible for figuring out what/why/how we develop the Origin platform to best satisfy our customers. You'll be constantly problem-solving and sit at the intersection of our clients, the business team, the

developers, designers. This is an incredibly challenging, fast-paced role so it's not for the faint hearted!

Graduate Software Engineer 2022 (Full Time & Industrial Placement) - You will be peer mentored, trained and expected to rapidly develop your skillset, working on new products and features. You will gain exposure to both the backend and frontend and over time you'll choose which one to specialize in.

We have a strong focus on testing & code quality, as well as continuous learning (Annual £500 learning budget, hackathons, training platforms and conference attendance). We hold regular company socials and outings. All roles are part work from home (we provide a WFH budget).

We have a proven track-record in scaling juniors very rapidly!

To find out more and apply please visit <https://www.originmarkets.com/careers>



CROWDSTRIKE

CrowdStrike BRONZE BESPOKE

At CrowdStrike, we stop breaches with our cloud-native endpoint security platform so our customers can go & change the world. Hackers don't stop- and neither do we.

CrowdStrike isn't just the next step in navigating your career—it's a quantum leap forward. Join us on our mission to stop breaches by checking out our Summer Internship Program!

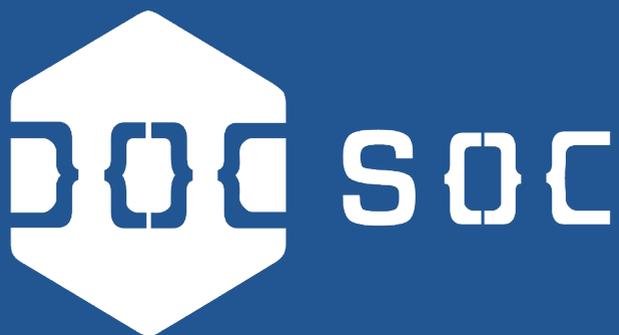
Operating across multiple locations (Reading & London for the UK), our Global Summer Intern Program offers international collaboration, impactful projects, real-life scenarios, an executive speaker series and various social activities. Internship areas include Engineering, Data Science, Incident Response, Intelligence and much more. We even offer opportunities to secure graduate positions to continue your CrowdStrike journey!

If you'd like to secure your career with the global leader in cyber security, go ahead and discover an internship with us today.

BANK OF AMERICA 

Bank of America BRONZE

As one of the world's leading financial institutions, we support 66 million customers in finance, from individuals, to businesses, governments and institutions. With a 200,000 strong workforce in more than 35 countries, you'll find us all over the world, from the Americas to Europe, the Middle East & Africa and Asia, helping to make our customers' lives better. And, we care about supporting our colleagues across the globe as much as our customers. In 2021, we were ranked as one of the "100 Best Companies to Work For" for the third consecutive year by Fortune magazine and the global research and consulting firm Great Place to Work®.



Our sponsors will be hosting lots of events and posting many opportunities throughout the year, so be sure to read weekly Digest emails, any other special emails, and keep checking our social media:



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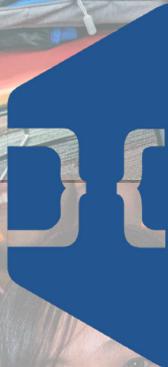


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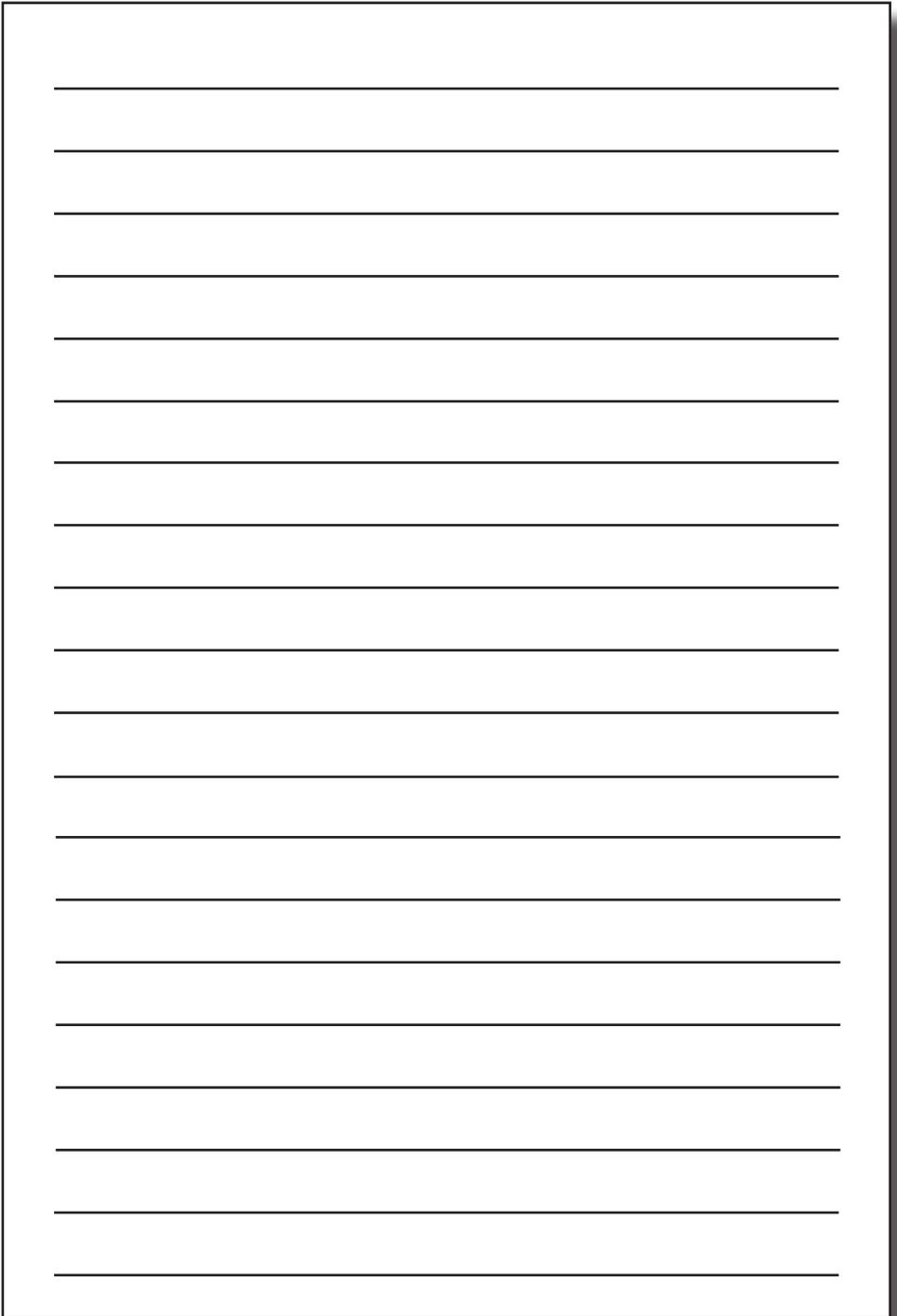


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Produced by Ishita Mahatme
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