ProEd

FUTURE COMPUTER SCIENTIST
SUMMER 2026

CAREER EXPLORATION
PASSION-DRIVEN

The Ultimate Work Experience by ProEd

ProEd offers immersive career learning experiences for students aged 13-18 who aspire to enter competitive fields such as Computer Science, Medicine, Psychology, Law, Entrepreneurship, Banking, and Finance.

Our residential programmes offer the 'ultimate work experience' through interactive simulations, site visits, seminars, networking sessions, and career coaching.

We have partnered with industry-leading organisations and experts to give students a unique insight into their chosen career path. The programme content has been designed by industry experts, providing a truly unique vocational insight into your chosen career.

FUTURE COMPUTER SCIENTIST COURSE OVERVIEW

For ambitious minds ready to shape the future of tech. Explore our timetable & overview!

INDUSTRY-LEADING PROFESSIONALS

To provide our students a unique insight into their chosen career path

TAKE PLACE IN A TOP-10 UK UNIVERSITY

One of the London's world-class universities

Future Computer Scientist

The programme has been expertly designed to provide students with an exciting, immersive, and technical insight into careers in computer science. Throughout the programme, participants will be introduced to key concepts in computer science, learn fundamental skills, and explore various career options in the field. The programme offers an opportunity to delve into programming, AI, machine learning, quantum computing, and more through interactive workshops, engaging seminars, and reflective sessions to maximise learning and skill development.

> "I found the university section very informative, and I found most of the content we covered to be really interesting. I had the opportunity to experience new things and concepts related to computer science, which was very beneficial.
>
> **Peranut**, Future Computer Scientist

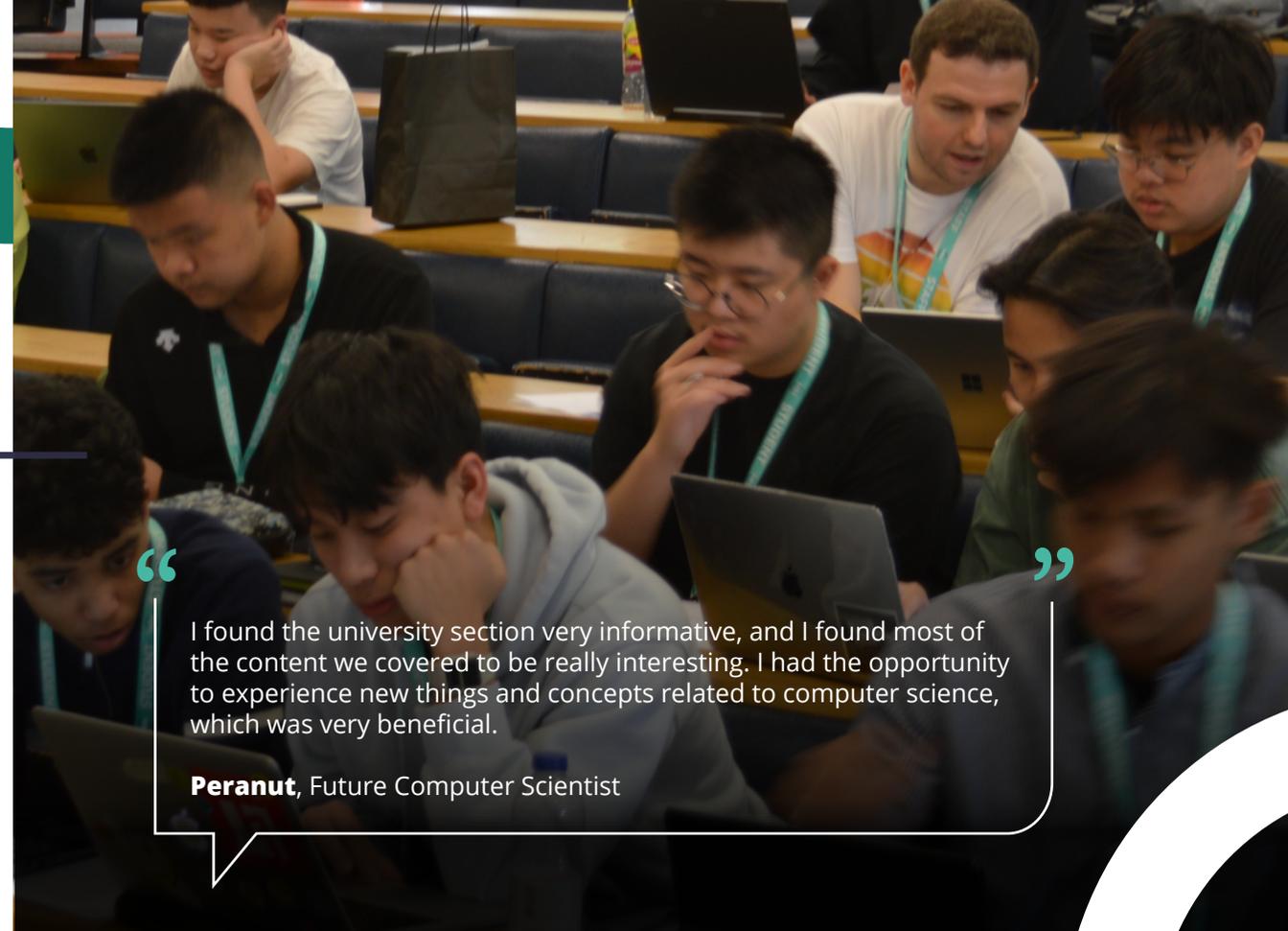## CURRICULUM OVERVIEW

WEEK 1
- Introduction to Logic
- Programming
- Game Development
- Machine Learning
- Day in Industry

WEEK 2
- Quantum Computing
- AI & The Metaverse
- Your University Application
- Interview & Admissions Tests
- Global Space Design Challenge

PROGRAMME DATES

20th July - 1st August

GRADUATE DESTINATIONS

IMPERIAL COLLEGE LONDON

Computing	Hyunbin	Lachlan
	Ryan	Steven
Computing (Software Engineering)	Jeffrey	Leonard
Computing (Management and Finance)	Caleb	

UNIVERSITY COLLEGE LONDON (UCL)

Computer Science	Aziret	Cindy
Data Science	Sara	
Mathematical Computation	Silas	

KING'S COLLEGE LONDON (KCL)

Computer Science	Aidan

Sample Timetable

WEEK 1

	MON	TUE	WED	THU	FRI	SAT	SUN
08:00 – 09:00					Breakfast		
10:00 – 13:00		Academic Enrichment Seminar/Lecturer	Academic Enrichment Seminar/Lecturer	Academic Enrichment Seminar/Lecturer	Immersive Day in Industry	Science Museum	Oxford Excursion
13:00					Lunch		
14:00 – 17:00	Arrivals	Practical Workshop/ Simulation Activities	Practical Workshop/ Simulation Activities	Practical Workshop/ Simulation Activities	Immersive Day in Industry	National History Museum	Oxford Excursion
18:00					Dinner		
20:00 – 21:00	Ice breaker	Shopping	Guest Speaker	London Excursion	Quiz Night	Free Time	Free Time
22:00					Evening Sign In		

WEEK 2

	MON	TUE	WED	THU	FRI	SAT	SUN
08:00 – 09:00					Breakfast		
10:00 – 13:00	Academic Enrichment Seminar/Lecturer	Academic Enrichment Seminar/Lecturer	Academic Enrichment Seminar/Lecturer	Global Space Design Challenge (GSDC)	University Application Preparation		Departures
13:00					Lunch		
14:00 – 17:00	Practical Workshop/ Simulation Activities	Practical Workshop/ Simulation Activities	Final Project Presentations & Feedback	Global Space Design Challenge (GSDC)	University Application Preparation		Departures
18:00					Dinner		
20:00 – 21:00	London Excursion	Final Project Preparation	GSDC Preparation	Free Time	Awards Ceremony		
22:00					Evening Sign In		

Note: This sample timetable is for reference only and is subject to change.
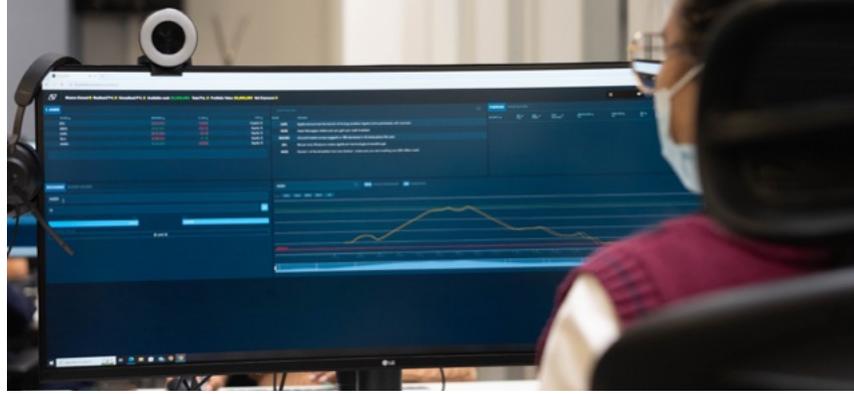
DAY 1 Introduction to Logic

1. Introduction to propositional logic.
2. The importance of Truth Tables.
3. 'Out of The Box Mathematics' for computer scientists.

DAY 2 Programming

1. Extend your practical knowledge of programming with Python.
2. Experience life as a budding computer programmer on an interactive Python project.
3. Software masterclass - what it takes to develop computer programme.
4. Q&A.

DAY 3 Game Development

1. Introduction to Game Development – introductory Dice Game.
2. Learn to set up game environments with Pygame.
3. Step into the shoes of a game designer – develop your own game!

DAY 4 A Day in Industry - MK:U Innovation HUB

1. Experience life as a computer scientist working in VR and Autonomous Vehicles
2. Gain first-hand experience in the cutting-edge development process of developing autonomous vehicles.

DAY 5 Machine Learning

1. Introduction - 'can computers think' is one of the most contentious debates in the world of computer science. Explore what the term 'machine learning' actually means in a series of immersive lectures and workshops.
2. Overview of machine learning (ML) and ML libraries.
3. Develop your own machine learning algorithms to classify and predict housing prices.

DAY 6 Quantum Computing

1. Linear algebra for computer scientists.
2. Introduction to quantum computing.
3. The future of cyber security – exploring the impact of quantum computing in breaking the internet.
4. Quantum algorithms.

DAY 7 AI & The Metaverse

1. Introduction to artificial intelligence – from autonomous vehicles to the likes of Siri and Alexa, AI is fast becoming an integrated part of our daily lives.
2. Metaverse immersive workshop – The future of consumer market?

Discover London

London, with over 2000 years of history, stands as one of the world's most dynamic and welcoming cities.

From vibrant street food markets to Michelin-star restaurants, it offers a rich cultural experience for every interest and taste. Its stunning architecture, vast green spaces, and bustling social scene are easy to explore.

Imperial College is located in London's prestigious museum district, just steps from top attractions and the city's lively heart.

Did you know…

- London is home to the iconic Natural History Museum, housing over 80 million specimens and stunning architecture.
- The Shard offers breathtaking panoramic views of the city from its towering 72 floors.
- Imperial College London, ranked 2nd globally (QS 2025), is a beacon of academic excellence.
- London's landmarks include Buckingham Palace, the Tower of London, and Westminster Abbey.
- With over 300 languages spoken, London is one of the most diverse cities in the world.

Explore the City

Whilst attending ProEd's London Summer Programme, students will have the opportunity to explore many of the iconic landmarks of the vibrant capital city.

Central London

Explore Trafalgar Square, shop on Regent Street, and enjoy the excitement of London's West End theatre district.

Westminster

Discover the Palace of Westminster, home to Big Ben and the Houses of Parliament. Visit Westminster Abbey and Buckingham Palace, the King's official residence.

Southbank

Stroll along the River Thames and enjoy the London Eye, explore the Tate Modern, catch a play at Shakespeare's Globe, or take in breathtaking views from The Shard.

Iconic Shopping Districts

London is a shopping paradise, from high end boutiques on Oxford Street and the iconic Harrods to the eclectic charm of Portobello Road and Camden Market.

Imperial College London

Imperial College London, ranked #2 in the world and the top university outside the USA for 2024/25, is the perfect setting for an inspiring academic experience.

Located in South Kensington, one of London's most vibrant areas, it offers a blend of academic prestige and urban charm. Students will reside in modern, accommodation on Imperial's South Kensington campus, surrounded by state-of-the-art facilities.

Founded by Prince Albert to drive cultural and scientific innovation, Imperial has become synonymous with excellence in science, engineering, and medicine. Its alumni include notable figures such as, Alexander Fleming,

the Nobel Prize-winning discoverer of penicillin, Brian May, legendary musician and astrophysicist and H.G. Wells, acclaimed author and pioneer of science fiction.

While staying on campus, participants will enjoy the buzz of London life alongside the tranquil beauty of nearby green spaces such as Hyde Park and Kensington Palace Gardens, offering the best of both worlds in one of the world's most exciting cities.

YOUR LEARNING JOURNEY

Workshops
Interactive, hands-on classes that focus on collaboration and real-world skills.

Masterclasses
An engaging forum led by an expert, offering students valuable insights into their field and new perspectives.
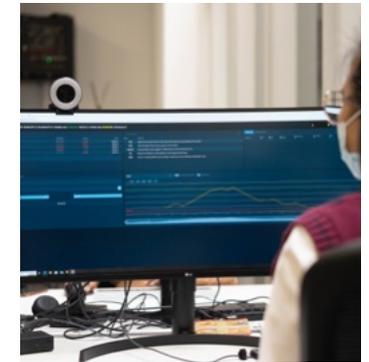

Guest Speakers
Esteemed guest speakers answer students' key questions and share valuable insights.

Debates
Crucial for building strong reasoning and confident public speaking skills.

Interactive Lec-
Engaging lectures by passionate teachers, filled with insights and perspectives.

Group Projects
A chance to collaborate and learn from diverse perspectives, broadening your understanding.

Seminars
Students engage in discussion and debate through pair and small group work.

Educational Trips
Our trips offer real-world examples of the course subjects, bringing students' learning to life.

Meet Our Professionals

Our tutors are industry-leading professionals dedicated to providing students with unique insights into their chosen career paths. With extensive experience and expertise, they are committed to guiding the next generation towards success in their fields.

OLEG, BANKER

Oleg earned an MBA from the London Business School and has extensive experience in business development, project management, and strategy development. He has worked in various sectors, including Metals and Mining, Infrastructure, Chemicals, as well as Restructuring and late-stage Venture Capital/growth investments.

KRISTIAN, ENTREPRENEUR

Kristian has been a key figure in the entrepreneurial ecosystem for the past 15 years, nurturing and growing startups. His expertise has supported numerous entrepreneurs to achieve significant 8-figure exits. Kristian has also made substantial contributions to entrepreneurship education and is known for his specialisation in new technology development and product innovation.

GAVIN, LAWYER

Gavin studied law at Magdalen College, Oxford. After graduating, he obtained several master's degrees in law-related areas, including criminal psychology, international human rights, social policy, and animal welfare law. He was called as a barrister in 2007, and since then, he has worked as a legal representative in immigration and human rights law.

SARA, COMPUTER SCIENTIST

Sara is a highly accomplished PhD candidate in her final year of study, focusing on the instruments aboard the ExoMars 2022 Rosalind Franklin Rover to understand the interaction between light and matter on the surface of Mars. She aims to identify areas that may contain evidence of life and is developing software tools for data analysis.

SHAYNE, ENGINEER

Shayne is the Director and Head of Mechanical Systems at Conex Research, with expertise in aerospace and mechanical systems. His work on the Arcanum Mission to Neptune resulted in a notable white paper. As the Subject Lead for Engineering at ProEd, he develops coursework bridging theory and practice.

DR AHMED, DOCTOR

Dr Ahmed is an academic general surgery registrar. He has extensive experience in undergraduate medical education, having founded Med-Saint, a medical journal, while studying at St Andrews University. While at Guy's and St Thomas' Hospital in London, he designed peer-assisted simulated patient clinical vivas.

DR PRIOR, PSYCHOLOGIST

Dr Prior is a Chartered Psychologist, Senior Lecturer, and Programme Director for the BSc Psychology programme at Cardiff Metropolitan University. With over 12 years of experience, she focuses on enhancing student experience and wellbeing. Her research includes family meals, adolescent wellbeing, and support services for eating disorders, as well as contributing to projects for people with late-stage dementia.

Note:The teaching staff listed above are expected to deliver most of their subjects, but this may be subject to change.

World-Class Learning Environment

Immerse yourself in the vibrant academic atmosphere of one of London's world-class universities with ProEd's residential career experiences. Hosted at top-ranked institutions, these programmes are known for their cutting-edge research, exceptional faculty, and dynamic campus life. Set in the heart of central London, you'll experience an inspiring summer of learning, personal growth, and a firsthand glimpse into the life of a university student at one of the UK's most prestigious educational institutions.
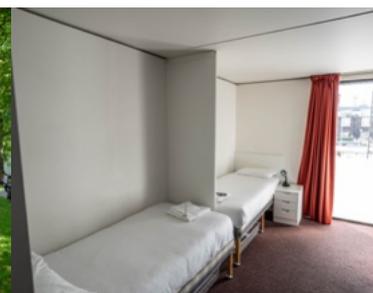
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