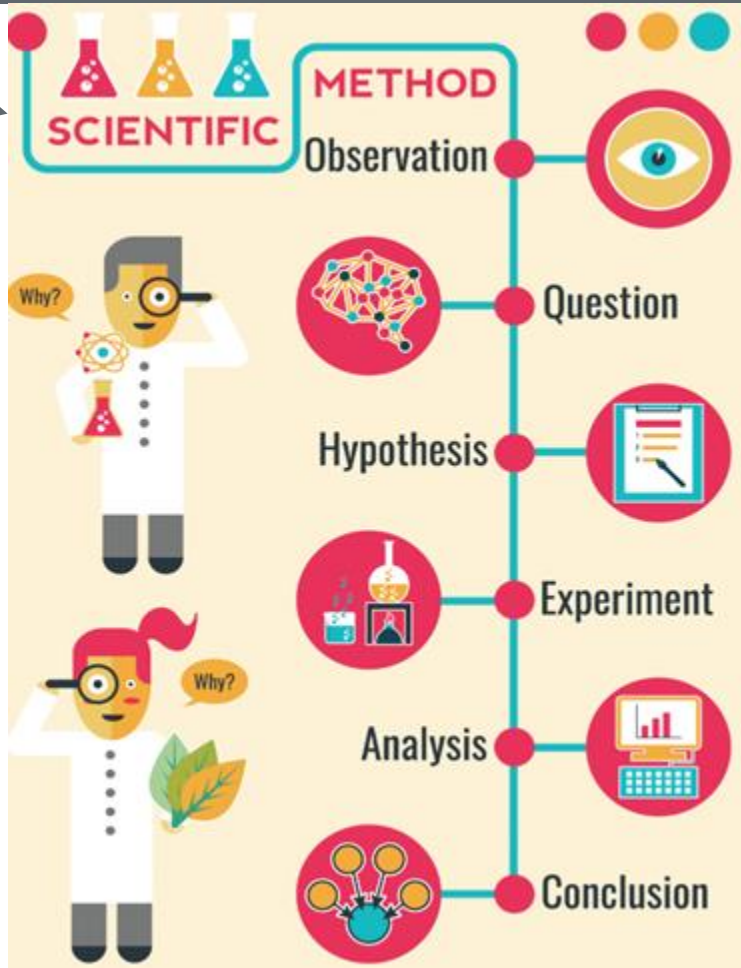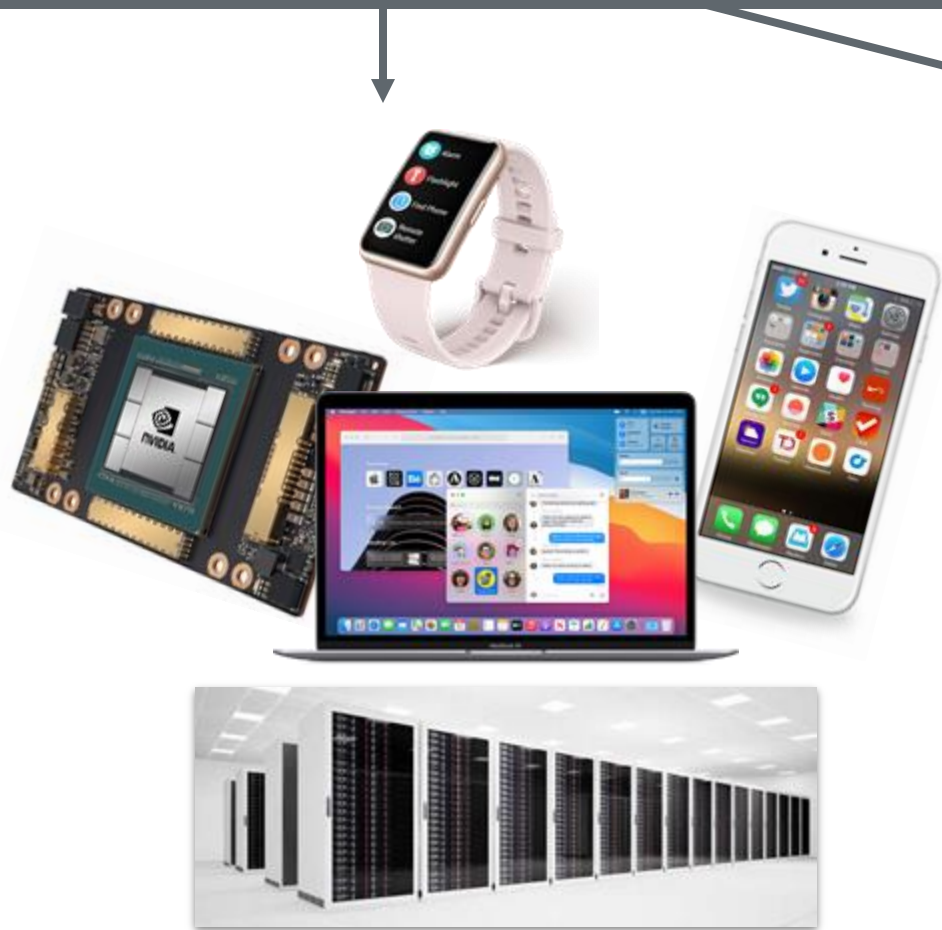# Computer Science at Durham University

What is computer science?

BSc in Computer Science (G400)

- 3 Years
- Standard offer: A*AA including Maths

MEng in Computer Science (G406)

- 4 Years
- Standard offer: A*AA including Maths

BSc/MSci in Natural Sciences (CFG0)

- 3/4 Years
- Standard offer: A*AA including Maths

Year 1

Foundational knowledge

- **Programming**
  Javascript, high-level concepts...
- **Mathematics** for Computer Science
  Logic, proof, probability, calculus...
- **Computational Thinking**
  Python, problem solving...
- **Algorithms** and **Data Structures**
  Search, sorting, path finding...
- **Computer Systems**
  Architectures, operating systems...

Year 2

Core knowledge

- **Programming Paradigms**
  C, C#, functional programming...
- **Artificial Intelligence**
  Machine learning, bias in AI...
- **Theory of Computation**
  Complexity, Alan Turing's work...
- **Networks and Systems**
  Web technologies, cyber security...
- **Data Science**
  Statistics, visualisation...
- **Software Engineering**
  Group work, industry exposure...
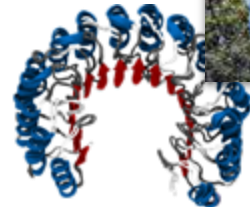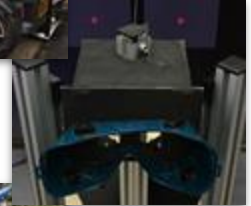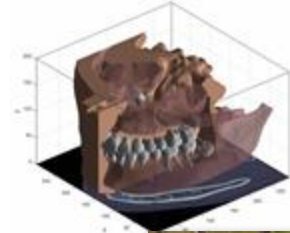
What will I learn? Our Modules

Years 3 and 4

Deep knowledge → New knowledge

- Algorithmic Game Theory
- Bioinformatics
- Blockchain and Cryptocurrencies
- Cryptography
- Computational Complexity
- Computational Modelling in the Humanities and Social Sciences
- Computer Vision
- Deep Learning

- Reinforcement Learning
- Multimedia and Game Development
- Natural Language Processing
- Parallel Scientific Computing
- Project Management
- Virtual and Augmented Reality
- Human-AI Interaction Design
- Data Compression
- Music Processing
- **Final Year Project**

- **Student projects** and **courses** across the full spectrum of computer science research

- **ACiD** – Algorithms and Complexity in Durham
- **AIHS** – Artificial Intelligence and Human Systems
- **NESTiD** – Network Engineering, Science and Theory in Durham
- **SciComp** – Scientific Computing
- **VIViD** – Vision, Imaging, and Visualization in Durham

Study abroad

- Apply to study overseas
- BSc: between 2nd and 3rd year
- MEng: 2nd and 3rd or 3rd and 4th
- Must pass the year, but marks from foreign institution do not count towards degree classification
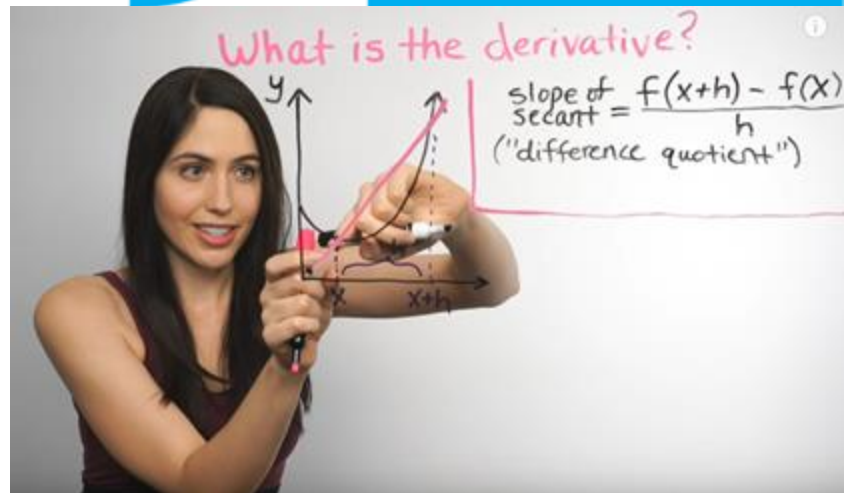
Industrial placement year

- Opportunity to do an additional industrial placement year
- Good to get experience before deciding on specialisation

What our selectors consider

- Prior and predicted grades
- Personal Statement
- Teachers/Academic Reference
- Contextual evidence of merit & potential
- Motivation for the degree programme
- Study & other skills

Find out more by attending 'Applying to Durham' session CG93 Chemistry Building or visit the Admissions Desk in the Teaching and Learning Centre/Business School

- We no longer ask you to make a college preference on your UCAS Application Form. The only option listed at UCAS is 'Durham City'

- Your college is NOT linked to your degree subject

- Before we allocate your college, you will be invited to rank the colleges in the order of your preference

- You will be allocated your college in or around May

- To find out more visit the Colleges Hub on the top floor of the Teaching and Learning Centre

Research-led Teaching

Graduate prospects

/ Max 100

100.0
100%

1st
▲ 5

Collegiate System

Hazan Venture Lab

World Top 100

Internship & Placement Support

Best Innovation in Blockchain Technology Award
Winner

HAWK-EYE

6th in the UK

Student Experiences