

# Welcome



We provide research-focused, intellectually-challenging Computer Science degree courses that are informed by current industrial needs and prepare you for a career in which you can make a huge impact on society and the economy.

Computer scientists need to be equipped to face constant challenges and changes throughout

their careers. The more rewarding jobs require a lot more than having programming skills: problem-solving, engineering and analytical skills, as well as the ability to work in teams, are required to operate in the global economy of today.

A Royal Holloway degree will prepare you for these challenges. Our internationally renowned academics bring both their research and experience of industry into the lecture theatre and the lab, helping you gain current and relevant skills and knowledge, stimulating your creativity, and challenging you to go out and transform the world in which we live.

**Dr Carlos Matos**

Head of Department



**7<sup>th</sup>**  
**IN THE UK FOR**  
**GRADUATE**  
**PROSPECTS**

*(Times and Sunday Times Good  
University Guide, 2020)*

## Contact details

Department of Computer Science  
Royal Holloway, University of London  
Egham, Surrey, TW20 0EX

### Admissions enquiries

Professor Gregory Gutin  
admissions@cs.royalholloway.ac.uk  
+44 (0)1784 443421

### Connect with us

[royalholloway.ac.uk/computerscience](https://royalholloway.ac.uk/computerscience)

# Computer Science at Royal Holloway

We now take it for granted that music, video, and any other form of information should be represented digitally; and in every field of life, from music to medicine, from finance to media, this shift to digital is accelerating. Computer scientists are at the heart of this enterprise, creating the key technologies that will underpin these new developments.

At Royal Holloway you will learn to innovate and explore the ramifications and benefits of exploiting new technologies. We offer:

- research excellence that informs our teaching: you will be taught by the people who are advancing their disciplines
- teaching quality that is consistently highly rated by our students in annual National Student Surveys
- a wide range of options to design a degree pathway that matches your ambitions
- a hands-on approach to learning with lab or project work in every year of your studies, much of which is done in teams
- Year-in-Industry pathways to gain experience and acquire skills that can only be picked up in a real work environment
- bursaries through which you can engage in research projects during the summer. You can also be paid to participate in software development projects or assist our lab teaching.

**19<sup>th</sup>**  
IN THE  
UK

(THE world university subject rankings, 2019)

**RANKED 11<sup>th</sup>**  
IN THE UK  
FOR QUALITY  
OF RESEARCH  
OUTPUT

(THE REF institutions ranked by subject, 2014)



# Choosing your degree

Our degrees are designed to stimulate your creativity and allow you to innovate by using the power of computing to solve real-world problems in a variety of application domains. The topics that you will be able to explore include:

- **Artificial Intelligence:** the set of advanced technologies through which machines can sense, comprehend, act and learn.
- **Information Security:** the threats to which software systems are vulnerable and the techniques through which they can be designed to prevent or minimise those threats.
- **Software Engineering:** the construction of complex systems that behave and interact as intended, reliably and securely.

Our wide range of options gives you the opportunity to design a pathway that matches your ambitions. Students may also be allowed to change between degree courses at different stages depending on which modules they studied.

For a full list of modules available and which are core for each degree course visit our website.

You can also choose to further enrich your degree by taking an integrated Year in Industry, or by opting for the opportunity to study abroad, take up a work placement or volunteering during an additional year.

We welcome applications from candidates looking for a challenging and exciting undergraduate degree taught in a well-equipped and friendly environment.

We are committed to recruiting more female undergraduate students and ensuring gender balance in all activities. The department has received a Bronze Athena SWAN award recognising best practice in equal opportunities.

## DEGREES

	UCAS code	Integrated Year in Industry*
BSc Computer Science	G400	✓
BSc Computer Science (Artificial Intelligence)	G4G7	✓
BSc Computer Science (Information Security)	G407	✓
BSc Computer Science (Software Engineering)	G464	✓
MSci Computer Science	G403	✓
MSci Computer Science (Artificial Intelligence)	GG47	✓
MSci Computer Science (Information Security)	G500	✓
MSci Computer Science (Software Engineering)	G461	✓

## JOINT DEGREES

BSc Computer Science & Mathematics	GG41
BSc Digital Media Culture & Technology	P304

\*Integrated Year in Industry degree courses have unique UCAS codes, visit our online coursefinder for details.

All our single-honours degrees are accredited by the BCS (British Computer Society), the chartered institute for the global IT profession, and EQANIE, its equivalent at the European level. The BCS has also distinguished our teaching of Software Engineering as 'Best Practice'.

The BSc and MSci in Computer Science (Information Security) have been awarded provisional certification by GCHQ, part of NCSC.





# Studying here

## Inspiring teaching

Our teaching will introduce, explain, challenge and stimulate your creativity. At the end of your studies, you will be able to work independently, as well as able to work with others, in taking the challenges of developing software systems as ambitious as they may be. How you learn is as important as what you learn, and we believe that the best way of teaching you computer science is to make you practice what you learn by developing projects, some small and some slightly bigger, some on your own and some in groups.

## Supportive learning

Our whole department has a strong culture of support for students. Every student has a personal advisor who works with them in providing academic advice and pastoral support throughout their entire degree course. We do not assume that, when you join us, you know how to program, so we offer a lab-based module during which you can develop, at your own level, real applications using all your imagination and creativity. You learn a lot and you also have lots of fun.

## Top facilities

You will have access to excellent amenities, including 24/7 access to the departmental computer laboratories. Our state-of-the-art library, housed in the Davison Building right in the heart of our campus is open 24 hours a day.

## Industry links

Our Industrial Advisory Board provides feedback on our degree courses and ensures that they remain industry relevant. Our software development company, Code Groovers, gives you the opportunity to work in real-world projects and acquire important transferable skills. We offer integrated Year in Industry degree options where you can apply your learning and gain experience and skills that will help develop your career.



Our state-of-the-art library, housed in the Davison Building.

## Student life

All students are welcome to join the Computing Society, which is run by our students who stand for election every year. It does great work in welcoming new students to the department, and settling into university life. CompSoc organises events through the year, including social events, programming workshops, hackathons, industry and careers lectures, quizzes, trips to external events and participation in external competitions. CompSoc is also very involved in promoting the department at Open Days and through school visits. The society has a subgroup dedicated to female students: Girls Who Code.

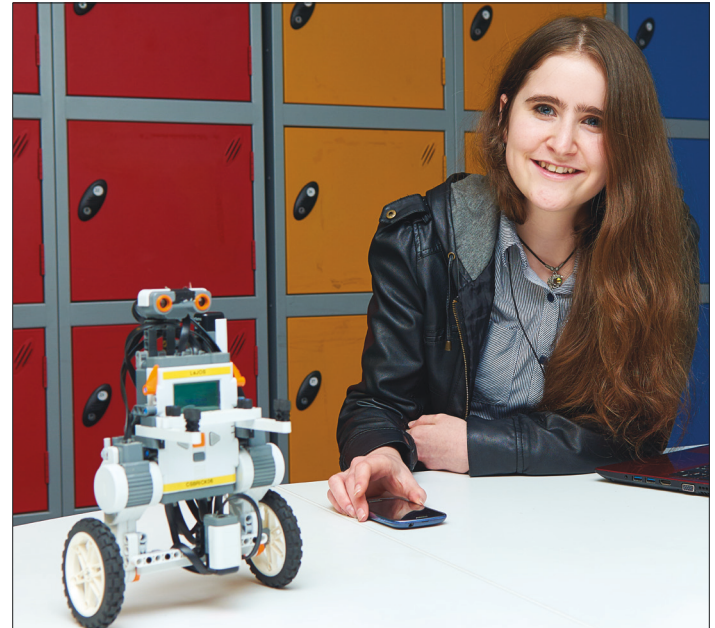
### Our community

The department is at the forefront of research into the fundamentals of computer science as well as how this feeds into exciting new techniques and applications for business and industry, and we pass this on to you through our teaching. Some of our academics are IT professionals with many years of experience in different domains; they will pass on to you technical and personal skills that will help you secure a good job.

Royal Holloway itself is located at the epicentre of the IT industry in the UK – the ‘M4 corridor’, also known as ‘England’s Silicon Valley’. Indeed, 45% of IT workplaces are in London and the South East. We have also been voted one of the safest university campuses in England.

**13<sup>th</sup>** IN THE UK  
**FOR COURSE  
SATISFACTION**

*(Guardian University Guide, 2020)*



“Royal Holloway has given me the chance to go beyond working for my degree and to start working towards my future. The department here gives you every opportunity to participate in the industry that exists beyond the walls of the lecture theatres.”

**Freya**

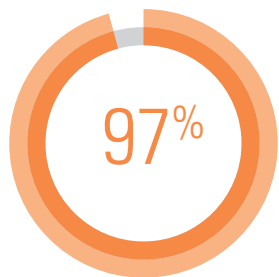
MSci in Computer Science (Information Security)

# Your future career



By graduating in Computer Science, you will be embracing a career in which individuals can make a huge impact in boosting economic competitiveness in all sectors of activity and the well-being of societies.

You will have the opportunity to interact with people from many sectors, spanning the arts, media, finance, aerospace, health, and others, who will stimulate your creativity.



of our graduates  
are **in graduate  
employment**  
within six months  
of graduating.

*(Destinations of Leavers from  
Higher Education, 2018)*

Careers advice and training is provided by our departmental Careers Director, working alongside Royal Holloway's dedicated Careers and Employability team.

We organise a number of events through which you can get directly involved with employers, including a part-time jobs fair with local employers and an annual fair that brings multiple IT companies to the campus.

We maintain a strong link with our alumni, who are often able to provide advice, contacts and networking opportunities.

Our graduates go on to work for well-known companies and organisations such as Amazon, Apple, Capita, Centrica, CGI-Logica, Goldman Sachs, IBM, JP Morgan, Microsoft, Sky, Symantec, among many others; or they join or create start-ups.

This brochure was produced in October 2019 and information was correct at that time. Please make sure you check our website or contact us directly for the very latest information if you are considering an application.





### **Royal Holloway, University of London**

- Learn from world leading experts
- Highly ranked for student satisfaction
- Beautiful campus in a safe location
- Vibrant and active community
- Award-winning careers service

### **Visit us to find out more**

Our Open Days are a great way to get a feel for life at Royal Holloway. Look around the campus, meet our students and staff, and find out more about studying and living here.

Find out more and register to attend at [royalholloway.ac.uk/opendays](https://royalholloway.ac.uk/opendays)