

**"We have been taking Imperial students for many years and firmly believe that placements are the best way to on-board new talent!"**

## Department of Computing Industrial Placements



<http://www.imperial.ac.uk/computing/industry>

The Department of Computing at Imperial is one of the largest computing departments in the UK and is a world leader in academic research in computer science. We are particularly well known for our work on distributed computing, logic and artificial intelligence, high-performance computing, visual information processing, computing theory, and computational aspects of management science.

An Industrial Placement is a compulsory part of both our four year MEng Computing and our four year MEng in Mathematics & Computer Science degree programmes.

Recruiting students on an Industrial Placement is one of the most effective ways of attracting world-class candidates upon graduation.

### How your organisation could benefit

Imperial Department of Computing students represent some of the top software engineering talent in the UK. Our Industrial Placement programme offers your organisation:

- An effective vehicle for recruiting our top graduates –recruiting a graduate who has worked with you already reduces your recruitment and training costs and may contribute to higher retention rates
- A way to exchange new ideas combined with fresh enthusiasm and knowledge of some of the latest technology
- The opportunity to encourage and invest in computer engineers of the future.

## Placement Summary

The Industrial Placement takes place in the student's penultimate year (third year of four year degree). During this time, the student is employed to work on one or two larger scale software development projects which are directly relevant to their degree of study.

For the **MEng Computing** students the Industrial Placement is six months in duration running from the first week in April to the end of September.

**MEng Mathematics and Computer Science** students complete a four month placement running from the first week in June to the end of September.



Degree Programme	When?	Duration	Start	Finish	Content
MEng Computing	Penultimate Year (3 <sup>rd</sup> of 4 years)	6 months	April	September	1 or 2 larger scale software engineering/development projects at graduate entry level
MEng Mathematics & Computer Science	Penultimate Year (3 <sup>rd</sup> of 4 years)	4 months	June	September	1 or 2 larger scale software engineering, mathematical or analytical based projects relevant to degree studies

## **Masters in Computing (MEng) Course**

The MEng Computing course is a four year programme with a six month compulsory Industrial Placement in the summer term of the third academic year, from the beginning of April to the end of September.

The programme starts as an undergraduate degree but results in a Masters qualification on graduation. Only students on at least a 2:1 level after the first two years of study are accepted onto the MEng course, and subsequently allowed to undertake a six month placement.

By the start of the Industrial Placement, students have completed three full academic years of instruction in computer science and software engineering principles, and will have learnt and used a wide variety of programming languages and software tools. As part of their course, students can specialise in Computing; Software Engineering; Artificial Intelligence; Games, Vision and Interaction; Computation in Biology and Medicine; and some students choose to study on the International Programme and spend some time abroad.

For further details, please see our teaching pages:

<http://www.imperial.ac.uk/computing/current-students/computing/>

## **Masters in Mathematics and Computer Science (MEng) Course**

The MEng Maths and Computer Science course is a four year programme with a four month compulsory Industrial Placement in the summer term of the third academic year, from the beginning of June to the end of September.

The programme starts as an undergraduate degree but results in a Masters qualification on graduation. Only students on at least a 2:1 level in both subjects after the first two years of study are accepted onto the MEng course, and subsequently allowed to undertake a four month placement.

The degree course gives a firm foundation in Mathematics, in particular Pure Mathematics, Numerical Analysis and Statistics, and covers all the essentials of Computer Science, with an emphasis on developing software and reasoning formally about it, as well as more theoretical topics. By the start of the Industrial Placement students would have used a wide variety of programming languages and software tools. The teaching is divided approximately equally between the two departments.

For further details, please see our teaching pages:

<http://www.imperial.ac.uk/computing/current-students/jmc-info/>

## Projects

The student will be a member of a team of software professionals, and will be involved with one or two larger software engineering projects throughout their training period rather than being used as a programmer on a large number of smaller tasks. Typical projects have included:

- Back-end development for Vodafone's Web-Tech R&D team (betavine.net). Work on all levels of a Java web stack (Spring, Hibernate, Acegi, Tomcat) and database work (PGSQL). Agile, Linux based development in an eight-man team;
- Developing a high throughput task scheduler for a grid computing platform at Betfair
- Performance evaluation at CERN of the GRIDFTP protocol across an inter-continental 2.5GBps link.

### Placement Student Profile:

Mu: MEng Software Engineering

"I was in a development role in the Java Technology Centre at IBM, assigned to create a proof of concept that merged my team's templating technology with an emerging Lotus product. This has meant that my time spent here at IBM has rarely been dull, because I have had to use and develop in a number of different environments and languages.

The support from colleagues and managers has been excellent, they were always proactive in making sure I was comfortable and enjoying the placement. I was also impressed that they assigned to me work that was interesting and that carried a degree of responsibility, because they expected a deliverable from me at the end of the placement. They have also asked me to present my project at the IBM research lab in Beijing."

### Placement Student Profile:

Jason Tsai

Over summer, I did a 6 month placement at Solidatus, a financial tech startup. The placement gave me both the freedom to decide what field of development I would like to focus on, as well as the guidance in this area to learn and excel. In my time there, I drifted towards more front-end oriented work, helping design and launch a new feature for the web app, the Graph Explorer.

This was a new form of data visualization in which users could analyze data models. Before even a beta release for the functionality, this feature was already being demoed to customers. From that, it is evident that Solidatus respects its interns' work and treats it seriously. Furthermore, everyone in the work environment was welcoming and treated me as a real part of the engineering team rather than just an intern. Overall, despite being a startup, there is no part of the placement experience that Solidatus fails to teach.

### Placement Student Profile

Tom Bellingham

Working at Media Molecule was, for me, the fulfillment of a childhood dream to break into the video game industry. When I was 10, I started programming in Lua on a user-generated content platform - much like Dreams - and that became the spark that bloomed eventually into my studies at Imperial College London. The whole experience was overwhelmingly positive and quite surreal, yielding great friends and memories; holistic technical and personal growth, and a whole horizon of future opportunities that I'm excited to pursue. This summer has become one of my all-time favorites, and I have both Imperial College and Media Molecule to thank for that!



## Placements Timetable

The best time to advertise Industrial Placement opportunities is at the beginning of the Autumn term for opportunities the following year. In order to have access to a wider range of candidates, you are advised to advertise as early as possible, preferably having the job or project specification available the first week in October.

The application process starts the first week of the Academic year in October. The Industrial Liaison team can advise on recruitment processes that are suitable to your internal structure and procedures.

Opportunities are advertised on the students' Intranet on the Industrial Placements Opportunities page.

To advertise, please contact us as early as possible in order to ensure that you have access to a wide range of students. Approximately two thirds of students receive offers before the Christmas break in mid-December.

### **September - March Advertise**

- Contact us to discuss opportunities with your company
- Fill in an Industrial Placement Advert Proforma and complete the Placement Provider Information Form
- Advertise vacancies  
Placement opportunities will be advertised online.

<http://www.imperial.ac.uk/computing/industry/placements/>

### **October – March Recruit**

- Applications  
Receive students' applications
- Interviews  
Assess students pre-selected for interview / assessment centre
- Make offer(s)

### **April - end September Placements**

- MEng Computing students on Placement
- June - end September**
- MEng Mathematics & Computer Science students on Placement
- 
- Academic Tutor visit to ensure the placement is going well

### **1<sup>st</sup> week in October Assessment**

- Presentations  
Students present their industrial experience. Placement hosts are invited to attend presentations
- Executive Summary  
Students submit a Executive Summary
- Submit your advert for **the next cohort of** Industrial Placements.

## **During the Placement**

Industrial Placement students are usually paid for their work, although the College does not stipulate a rate of pay. Other statutory terms and conditions will also apply, including holiday leave allowance. These conditions will be part of the contract of employment or appointment letter agreed between the company and their employee, i.e. the Student.

### **Tutor Visits**

The Department will keep in close contact with Placement student and their managers and mentors during the Placement. In the period June/July the student's Tutor or an academic staff member in lieu of the Tutor will visit the company in order to assess the student's achievements, plus the company's assessment of the student and the quality of the Placement. The Tutor then submits a report about their visit.

### **Executive Summary**

Placement students are required to write a Executive Summary which is a summary of the work completed.

### **Presentation**

On returning from Placement, during the first week of the Autumn term of the fourth year, students are required to give a ten minute oral presentation on their Placement experience. Company representatives are invited to attend to support their student. In addition, third year students who will be going on their Industrial Placements the following year are invited to come and see the presentations and hear about placements in different organisations making it a great way to advertise your future employment opportunities and meet potential applicants.

### **Company Assessment**

Assessment of the student's contributions and achievements by a company supervisor during the Placement is also desirable. The student's Tutor usually has an informal meeting with his/her manager and/or mentor which usually takes place when they visit in June or July. Towards the end of the Placement we also ask hosts to complete a short online feedback form on their Placement student's performance.

### **Confidentiality Concerns**

In order to assess our students we recommend that the company should resolve any confidentiality concerns regarding the Placement Report, Logbook and/or the Presentation before the Placement begins. The company can ask the student to get his/her coursework approved by an internal manager in charge of the project or the IP Department. This practice would enable the company to remove any commercially sensitive material and give the student a fair chance of assessment.

This should not, however, prevent the student from discussing your organisation, the technologies they used or what they have learned from their work experience. Please remember that these presentations also promote your company to future applicants.

### **Work Permits**

As the Industrial Placement is a compulsory part of the degree programme overseas students do not require a work permit to undertake an Industrial Placement.

## Our Placement Hosts

A wide variety of companies, both large and small, and in the UK and overseas, host Imperial computing students on Placement. Companies who have recently hosted our students include ABB, Amadeus, Amazon, Bank of America Merrill Lynch, Barclays, Bloomberg, Citi, Detica, Deutsche Bank, Formicary, Goldman Sachs, Google, Kaspersky, Microsoft, Morgan Stanley, New Voice Media, Ocado, UBS and VMware amongst many others. A high proportion of students are offered graduate jobs by their host company which indicates the success of the scheme.

**For further details please visit our web pages:**

<http://www.imperial.ac.uk/computing/industry>

## Contact Us

If you would like to advertise Placement opportunities or you'd like to find out more about how your organisation can benefit from hosting placement students, please contact:

**Industrial Liaison Team**

**Email:** [doc-placements@imperial.ac.uk](mailto:doc-placements@imperial.ac.uk)

**Tel:** +44 (0)20 7594 8382

**South Kensington Campus, Imperial College London  
London SW7 2RH, UK**

### Join us as a Corporate Partner

To find out about other ways in which we can support you in recruiting our students and graduates, including access to a database of student CVs, please visit our Corporate Partnership Programme web site:

<http://www.imperial.ac.uk/computing/industry/cpp/>