

Name: **James Hamilton**

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## **Education**

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### **Goldsmiths, University of London**

Currently studying for a PhD related to Java, Java bytecode, Java bytecode decompilation, Java bytecode obfuscation.

### **Goldsmiths, University of London**

MSci Computer Science First Class Hons.

### **Carshalton Boys Sports College**

I attended Carshalton Boys Sports College, from September 1997 to June 2004, and received 10 A\* - B GCSE qualifications and the following A Level and AS Level qualifications: A Level ICT (B), A Level Physics (D), AS Level Pure Mathematics (D) and AS Level Geography (B).

## **Work Experience**

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### **Tutor - Goldsmiths, University of London (part-time, October 2007 - Present)**

- Foundation Mathematics
- Graphical Object Orientated Programming in Java
- Network Programming in Java
- Previously tutored in:
  - First Year Java
  - Second Year Database Systems

### **Teacher - Lewisham College (part-time, October 2007 - Present)**

- Communication Systems (Foundation Degree in Business Information Technology, First Year)
- IT Organisation and Deployment (Foundation Degree in Business Information Technology, Second Year)
- Previously taught:
  - Visual Programming using VB .Net (National Diploma for IT Practitioners, Second Year)
  - Internet Business Applications (Foundation Degree in Business Information Technology, First Year)

### **ICT Technician / Webmaster - Carshalton Boys Sports College (part-time, August 2003 - August 2007)**

I started work as an ICT Technican providing assistance to the network manager, students and staff of this secondary school. This involved solving hardware and software problems, installing new systems and providing general support.

I then moved to the position of webmaster in June 2004 and developed their website using PHP/PostgreSQL/HTML/CSS running on Apache on a Red Hat Enterprise Linux server (server also maintained by me). The site contained a custom built content management system allowing teachers to edit pages, add news and pictures. It also contained IT room booking system to allow teachers to book free IT rooms for classes. I liased with the staff at the school to make

additions and update the site on their behalf. (The site has been redeveloped since I left).

### **Freelance web development work (part-time, 2006 - present)**

- functionpix.com - photography/journalism site which accepts user contributions and makes them available to the public/the media (development has now been handed over to another developer).
- wannabeeuk.com - converted a static HTML site into a dynamic PHP site with features such as page editing, user sign up, internal user admin system, profile editing, search, photo upload, web based messaging system, user favourites (now offline).
- www.viewdo.com - user-contributed how-to videos. I found a security flaw in the download page and offered assistance.
- blinkersoff.co.uk - I co-worked on this project for Saatchi & Saatchi which consists of an image gallery website capable of accepting user contributions - my part being the backend development using PHP/MySQL and Flash uploader.
- Montrose House Website - subcontracted by IT firm Kalms Associates to design this web site advertising a holiday home.
- www.kalms-associates.com - simple web site

### **Private Tuition**

I have given lessons on computing subjects to second and third year individuals and groups.

### **Programme Monitoring Representative**

During my second and third year at Goldsmiths I was a programme monitoring representative for my degree programme.

## **Other Information**

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### **Technical Experience**

- Languages: Java, PHP, Javascript, ActionScript, SQL, XML, HTML, CSS.
- Applications: Netbeans, Eclipse, Fireworks, Flash, Dreamweaver, phpMyAdmin, phpPgAdmin, Apache, OpenOffice, Firefox, Vi, TextPad, Microsoft Office
- Database Systems: PostgreSQL, MySQL
- Platforms: Ubuntu (Linux), Windows (98, 2000, XP) & Mac OS X 10.5
- General programming design patterns, including Object Oriented Programming, database development, AJAX techniques.
- Prior experience with, and understanding of: XSLT, XPath, Visual Basic 6 & .Net, Prolog

### **MSci Project**

Static Source Code Analysis Tools and their Application to the Detection of Plagiarism in Java Programs. Grade 83%.

This project develops a system for detecting plagiarism in sets of student assignments written in Java. Plagiarism is viewed as a form of code obfuscation where students deliberately perform

semantics preserving transformations of an original working version to pass it off as their own. In order to detect such obfuscations we assume we have a set of programs in which we attempt to find transformations that have been applied. We investigate tools for static analysis and transformation of Java programs to build a system for plagiarism detection.

## BSc Project

Artificial Ants: Simulating Ant Behaviour and Investigating Applications In Computing. Grade 91%.

Ants are excellent route finders, with the ability to find the shortest path between their nest and a food source, by using pheromone trail clues to organize themselves collectively. My project introduces ant behaviour by the implementation of an ant simulation, and finally applies lessons learned from the simulation to graph and network routing problems.

### Courses studied/results achieved

Year	Course	Grade
4	Artificial Intelligence	53
4	Computer Security	62
3	Data Compression	71.04
3	The Semantic Web	69.32
3	Logic Programming	69.40
3	Language Design & Implementation	60.60
3	Advanced Databases: Data Mining	66.54
3	Web Site Design & Implementation	93.04
2	Graphical OOP and Network Programming using Java	82.50
2	Data Communications and Algorithms	66.20
2	Software Engineering and Research Methods	60.68
2	Database Systems	74.55
1	Mathematics for Computing	71.00
1	Information Systems	60.00
1	Introduction to OOP	92.00
1	Introduction to Internet Computing	75.00

## Languages

Basic Arabic - Reading, Writing and Speaking

## References

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