Yousef Amar
Curriculum Vitae

✉ *yousef@amar.io*
🌐 *yousefamar.com*
☎ *+44 7899 049668*
29C Parsons Green
SW6 4UJ, London

Profile

As an MEng graduate in Computer Systems Engineering with Business Management, my skills are multi-faceted. With strengths in hardware design, low to high-level programming, and every layer of web development, but also project management and business administration, I am a jack of all trades.

I am currently a visiting PhD student at Imperial College London with a focus on Systems, Privacy, Networks, Security, and Personal Data under Dr Hamed Haddadi at the Department of Electronic Engineering and Computer Science. For more information and to see past projects and work in more detail, please visit my website or my LinkedIn profile.

Education

2016–present **PhD in Electronic Enginering and Computer Science**, *QMUL*, London, U.K.
Societies:
◇ Artificial Intelligence and Robotics Society
◇ Engineers Without Borders
◇ Design Society
◇ Trading and Investment Society

2010–2014 **Master of Engineering**, *The University of Birmingham*, Birmingham, U.K.
First Class Honours
Project Work:
4th Year MEng Final Year Project
Design and implementation of a low-cost UAV sensor system for constructing object and topographical 3D models in real-time.
3rd Year MEng Group Project
Building a quadcopter that can autonomously transport a payload from the roof of the EECE building to an arbitrary target.
Societies:
◇ Electronic, Electrical & Computer Engineering Society
◇ Birmingham Enterprise and Entrepreneur's Society (BEES)
◇ Games Development Society
◇ Investment Society
Other relevant modules:
◇ Data Mining
◇ Computer Vision
◇ Computer Networking
◇ Computer Hardware and Digital Design
◇ Digital Systems and Embedded Computing
◇ Digital Logic and Microprocessor Systems
◇ Object Oriented Software Design
◇ Computer Systems, Algorithms and Data Structures
◇ C Programming and Algorithmic Problem Solving
◇ Project Management and Professional Practice
◇ Advanced Interactive 3D Design for Virtual Environments and Serious Games

2010 **European Baccalaureate**, *European School Frankfurt*, Frankfurt, Germany

Experience

Research

May 2017 –
Aug 2017
Research Intern, *Nokia Bell Labs Stuttgart*, Stuttgart, Germany
Research in distributed function scheduling and dynamic load balancing for minimising latency in the context of serverless computing

Oct 2014 –
Jan 2016
Research Intern, *The University of Oxford*, Oxford, U.K.
Research in multi-camera rig calibration, multimodal scene reconstruction, machine learning, and HRI, while attending doctoral training program lectures

Vocational

Jan 2016 –
present
Teaching Assistant, *Queen Mary University of London*, London, U.K.
Teaching, supervision, and examination of undergraduates and postgraduates.
◇ Digital Systems Design (hardware design and VHDL)
◇ Software and Network Services Design / IT Programming (a Java module)
◇ 2x Digital Media and Social Networks (graphs, network analysis, web APIs)

Sept 2010 –
June 2014
Programming Tutor, *Self-employed*, Birmingham, U.K.
Personal tutor to 16 students

Nov 2011
Teaching Assistant, *The University of Birmingham*, Birmingham, U.K.
Teaching and supervision of sixth form students

May – Sept
2008
Shop Floor Worker, *Aquila Aviation AG*, Berlin, Germany
Construction and assembly of fibre composite plane parts

Miscellaneous

◇ Student Representative of the Department of Electronic, Electrical and Computer Engineering for 2 consecutive years. Student Rep Chair for 1 year.
◇ Peer Assisted Study Sessions (PASS) Leader; tutoring first year students.
◇ Ambassador for the University of Birmingham on a cultural exchange program in China for future direct-entry students.
◇ EECE Green Impact project assistant for 2 years and sole student delegate.
◇ Certification of completion of Birmingham Start-Up Masterclasses 2013

Skills

Programming/ Scripting						
Java	Python	C/C++	C$^\sharp$	R	HTML5+CSS3+JS	
PHP+SQL	VHDL	GLSL	MatLab	Bash	CUPL	Assembly

Software and APIs					
OpenGL	OpenCV	OpenCL	OpenMP	CUDA	SSE Programming
LaTeX	Doxygen	Node.js	LiveScript	MongoDB	Docker
Cordova	WebGL	WebSocket	Unity3D	Blender	Git, Hg, SVN
GIMP	IBM z/OS mainframe (CICS, WebSphere MQ, JCL)				

Spoken Language		
English (fluent)	German (fluent)	Arabic (fluent)
Italian (4yrs)	Mandarin (1yr)	

Other   ◇ Extensive experience in teamwork with people from any background face-to-face or online and achieved the PSA Advanced award through volunteering work and attending regular lectures, workshops, and networking events for soft skills and insights on the industrial environment.

◇ Ability to perform extended research and write up detailed scientific reports as well as literary essays, due to the nature of my degree and regular publication and reviewing of journal papers, conference papers, and patents.

◇ Confidence in public speaking and dealing with large numbers of people through conference talks, school outreach work, public speaking events, actively campaigning for a position as school council president, and protagonists roles in 3 Shakespearean plays.

◇ Ability to work efficiently under heavy time pressure amassing a large fanbase writing video game mods and extensions who expect immediate release updates, in conjunction with winning several programming contests (e.g. IBM, SMAC, LD) with tight deadlines.

Publications

2018   Building accountability into the Internet of Things: the IoT Databox model *Journal of Reliable Intelligent Environments* (pp. 1-17) Springer

2017   Balanced Message Distribution in Distributed Message Handling Systems *US Patent (serial number: 15/794440)*

2017   Route-based authorization and discovery for personal data *In the 11th EuroSys Doctoral Workshop*

2016   Personal Data Management with the Databox: What's Inside the Box? *In Proceedings of the 2016 ACM Workshop on Cloud-Assisted Networking* (pp. 49-54) ACM

2016   Privacy-aware infrastructure for managing personal data *In Proceedings of the 2016 ACM SIGCOMM Conference* (pp. 571-572) ACM

2015   Incremental dense multi-modal 3d scene reconstruction. *In Intelligent Robots and Systems (IROS), 2015 IEEE/RSJ International Conference on* (pp. 908-915) IEEE

Awards

2018   EuroSys Shadow PC Travel Grant

2017   EuroSys 2017 Travel Grant

2017   IEEE Circuit Building Competition Winner

2016   SIGCOMM 2016 Travel Grant

2014   AP Jarvis Prize

2014   Personal Skills Award (Advanced)

2014   Peer Assisted Study Sessions scheme PASS Leader of the Year award

2014   University of Birmingham Student Mobile App Competition (SMAC) winner

2013   IBM Mainframe Challenge 2012 winner

2009-2013   University of Birmingham First Class Excellence Scholarship

2008   2x European School Science Symposium medalist

Referees

Dr Hamed Haddadi
Lecturer (Assistant Professor) in Digital Media
Department of Electronic Engineering and Computer Science,
Queen Mary University of London, Mile End Road, E1 4NS London, U.K.
02078823436 • hamed.haddadi@qmul.ac.uk • http://www.eecs.qmul.ac.uk/~hamed

Professor Philip H. S. Torr
Fellow St Catherine's College
Royal Society Wolfson Merit Award Holder
Department of Engineering Science,
University of Oxford, Parks Road, OX1 3PJ Oxford, U.K.
01865283059 • philip.torr@eng.ox.ac.uk • www.robots.ox.ac.uk/~phst

Professor Robert J. Stone
Chair in Interactive Multimedia Systems
Director, Human Interface Technologies Team
School of Electronic, Electrical & Computer Engineering,
University of Birmingham, Edgbaston, B15 2TT Birmingham, U.K.
01214147395 • r.j.stone@bham.ac.uk • www.birmingham.ac.uk/stone

Further available upon request.