

JACK MCBRIDE

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EDUCATION

University of Kent, Canterbury
Master of Science in Advanced Computer Science

September 2016 - September 2017

- Trust, Security and Privacy Management
- Advanced Java for Programmers
- Networks and Network Security
- Computer Security
- Advanced Network Security
- System Security
- C++ Programming
- **Security Analysis of Contiki Operating System**

University of Kent, Canterbury
Bachelor of Science in Computer Science (Artificial Intelligence)
First Class Honours

September 2013 - July 2016

- Computer Security and Cryptography
- Natural Computation
- Cognitive Neural Networks
- Computer Law and Professional Responsibility
- Computer Graphics and Animation
- Image Analysis and Applications
- **IoT Sound Monitoring System “Orange Street”**

EXPERIENCE

School of Computing, University of Kent
Research Assistant

January 2017 - Present
Canterbury, Kent

- Security analysis and penetration testing of the Contiki Operating System.
- Using state of the art Static and Dynamic software and decompilation tools to analyse the Contiki source code.
- Investigating security flaws, and applying fixes using knowledge of the C programming language.
- Collaborative working with research teams at University of Kent and University of Bristol, and Contiki developers.
- Aiming for a publication of research in this area to contribute to the field of IoT security.

School of Computing / UK Government Internship
Cybersecurity Intern & Researcher

July 2016 - September 2016
Canterbury, Kent

- Summer Internship in the field of Cybersecurity.
- Analysing Internet of Things home security products, ranging from smart padlocks to front door locks, and documenting security flaws.
- Developing unique hacking tools such as a “brute-forcer bot” to intuitively analyse security flaws.
- The research formed a publication to be published to a high tier international security conference.
- Presenting research findings in a talk, followed by a detailed technical report.

School of Computing, University of Kent

September 2015 - Present

*Teaching & Homework Club Assistant**Canterbury, Kent*

- Teaching a core programming module in the Java programming language to stage one students.
- Communicating with students to assist them in grasping abstract programming concepts and put them into practice.
- Teaching skills used to assess quality of work and invigilate a programming exam.
- Assistant in the School of Computing homework club, to assist in coursework assignments undertaken by undergraduate students.
- Demonstrating academic knowledge, problem solving capability and communication skills.

School of Computing, University of Kent

September 2015 - Present

*UCAS Open Day Assistant**Canterbury, Kent*

- Welcoming prospective students to the School of Computing during UCAS open days.
- Giving guided tours around campus and accommodation of the University.
- Performing demonstrations related to Computer Science.
- Demonstrating a good working knowledge of the University and the School of Computing.
- Integrating with other assistants to work as a team, and managing large groups of students to a time schedule.

TECHNICAL SKILLS

Across my undergraduate and master's level degree programmes, I have acquired proficiency in the following areas:

Programming Languages

Python, Java, C/C++, Erlang, HTML, CSS, PHP, Javascript

Databases

MySQL, PostgreSQL, Microsoft Access

Tools

LaTeX, Penetration testing kits, Wireshark, Kali Linux

Operating Systems

macOS, linux distributions including CentOS, Ubuntu and Raspian, Windows, C

ACTIVITIES AND INTERESTS

I have also held responsibilities and participated in the following activities during my studies:

University of Kent Jiu Jitsu

President 2016/17- I have been responsible for coordinating club activities and arranging events. My experience in the role has developed my leadership abilities and organisational skills whilst collaborating with the society committee.

Kent Cyber Security Society

Committee Member - As a member of the cyber security society, I have attended CTF events and workshops to help develop my practical knowledge in a competitive environment. Additionally, I have used my knowledge of Cryptography to devise workshops of my own.

REFEREES

I am happy to supply these on request.