

James Sewart

jamessewart@gmail.com | +353 (87) 185 5329 | jamessewart@arista.com | Dublin, Ireland

EDUCATION

UNIVERSITY OF BRISTOL

MEng in Computer Science

Sept 2013 - 2017 | Bristol, UK

First Class With Honours (≈ 4.0 GPA)

YEAR 4

Cloud Computing

Advanced Computer Architecture

Robotics

Learning in Autonomous Systems

Algorithmic and Economic Aspects of the Internet

YEAR 3

High Performance Computing

Advanced Algorithms

Machine Learning

Image Processing

Computer Graphics

Computational Neuroscience

Web Technologies

YEAR 2

Compilers

Signals, Patterns, and Symbols

Operating Systems

Data Structures and Algorithms

Concurrent Computing

Networking

YEAR 1

Computer Architecture

Programming and Algorithms

Mathematical Methods for Computer Science

WYKE SIXTH FORM COLLEGE

A-Levels

Grad. June 2012 | Hull, UK

A-LEVELS

Computing BTEC, Maths A2, Physics

A2, Further Maths AS, Psychology AS

SKILLS

PROGRAMMING

PAID TO WRITE

C (userspace+linux kernel) • C++ • Go

• Python • C# • Bash • Git • Fortran

EDUCATED IN

JavaScript/Node.js • HTML & CSS •

OpenCL • CUDA • OpenMP • MPI •

OpenCV • \LaTeX • MATLAB • Haskell

EXPERIENCE

ARISTA NETWORKS | Software Engineer

July 2017 - Now | Dublin, Ireland

Working on a userspace memory management library for Direct Memory Access. Includes a C++ library and Linux kernel modules. Pushed changes to upstream Linux to improve IOMMU driver implementations to support Arista's requirements. Led an effort to open source the kernel side of Arista's memory management library.

Worked on coreboot improvements for debugging rare system hardware faults.

Mentored multiple new hires, both interns and full time members joining our team. Lead maintainer of multiple software packages.

DRONE CONTROL PART 2 | Researcher

January 2017 – June 2017 | Bristol, UK

Developed a simulator and infrastructure for training quadcopter flight controllers using reinforcement learning.

Master of Engineering Dissertation project.

PERFORMANCE PORTABILITY | Research Intern

June 2016 – August 2016 | Bristol, UK

Working under supervision of Professor Simon McIntosh-Smith to port and optimise a microbenchmark fluid simulation to a variety of HPC libraries.

Developed code for the Sandia National Labs Mantevo project. Involved working at the Barcelona Supercomputing Center.

IWOCL | Lab Assistant

April 2016 | Vienna, Austria

Assisted an Advanced OpenCL Tutorial at the International Workshop on OpenCL.

ROLLOUT, AR ROBOTIC 1V1 GAME | Lead programmer

September 2015 – June 2016 | Bristol, UK

Developed an augmented reality game in a team of 6. The game involved two spherical robots interacting with a virtual arena. Challenges included sensor fusion of image processing data, and Inertial Measurement Unit data streamed from the robot.

Bachelor of Engineering main project.

DRONE CONTROL | Research Intern

June 2015 – August 2015 | Bristol, UK

Working under supervision of Dr Walterio W. Mayol-Cuevas to develop a system to accurately perform stationary and moving setpoint tracking of a quadcopter, using vision based motion capture and PID controllers.

PC DATA SERVICES | Software Engineer

November 2012 - September 2013 | Hull, UK

Worked with a small development team and customer support team to add features and bugfix a web app provided to customers.

AWARDS

2016 Awarded prize from Cray for top of class achievement in HPC

LINKS

Github:// [jamuus](#)

LinkedIn:// [jamuus](#)

Personal Website:// [jams.site](#)