# Michael Rollins

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# Personal profile

I am interested in many aspects of software engineering, particularly Financial Technologies, High Performance Computing and Cloud Development. I have experience in numerous aspects of software development, including making use of Agile techniques, .NET and both front and back-end development. Outside of work I enjoy undertaking personal programming projects and Euler Project problems, where I have completed over 50 challenges.

#### Education

### **University of Bristol**

2016 - 2020

### **MEng Computer Science | Upper Second Class Honours**

Dissertation (81%): Studies of Response-Time Issues in Popular Trading Strategies via a Multi-threaded Exchange Simulator

Key Units:

- COMSM0010: Cloud Computing
- COMS30006: Advanced High Performance Computing
- COMSM1500: System Security

- COMSM0019: Internet Econ & Financial Technology
- COMS32500: Web Technologies
- COMS30121: Image Processing and Computer Vision

#### **Portsmouth Grammar School**

2002 - 2016

A Levels:

Maths

Further Maths

Physics

Electronics

## Career Summary

# CACI Ltd – Information Intelligence Group Software Engineer II (SC Clearance)

Sept 2020 - Present

I started at CACI as a new graduate, and quickly established myself as a key team member. Whilst here I have worked on a project for the Home Office, that once fully deployed will have tens of millions of users each year. This project involved a microservice architecture consisting of many Spring based services. Personally I took charge of upgrading an entire .NET subsystem, created mock services for easier local development and added a range of new features. Within 6 months I received my first promotion in recognition of my quick learning, independent working and technical ability.

Topics: Spring, NET, Kubernetes, Grails, Microservices

# CACI Ltd – Information Intelligence Group Engineering Intern

July - Sept 2020

I spent 9 weeks during the summer between my second and third years of university working with the Information Intelligence Group of CACI Ltd, where I developed a tool for the Met Office to estimate the cost of downloading climate data. It involved an AWS back end implementing DynamoDB tables, S3 buckets, Lambdas and an API Gateway. The front end was an Angular v6 based web app. The project could be deployed simply via a CI pipeline. *Topics: Angular, Serverless, Continuous Integration, AWS: Lambda, DynamoDB, S3, API Gateway* 

#### **Publications**

Methods Matter: A Trading Agent with No Intelligence Routinely Outperforms Al-Based Traders – Dave Cliff & Michael Rollins (2020). Presented at IEEE Symposium on Computational Intelligence in Financial Engineering (CIFEr2020) in Canberra, Australia, 1-4 December 2020

Which Trading Agent is Best? Using a Threaded Parallel Simulation of a Financial Market Changes the Pecking-Order – Michael Rollins & Dave Cliff (2020). Presented at European Modelling and Simulation Symposium (EMSS2020) in Athens, Greece, 16-18 September 2020.

# **Technical Strengths**

Languages: Python, Java, C#

Cloud: AWS, Kubernetes

Tools: Docker, Spring, Angular, .NET, OpenMP, OpenCL, WireMock

References available on request.