

Personal profile

I am interested in many aspects of software engineering, particularly Financial Technologies, High Performance Computing and Cloud Development. My professional experience has been mostly in back-end Java development, but I have also had experience in .NET and the Angular front-end framework. During my time at University my main language was Python, which I used to build my dissertation project. Outside of work I enjoy undertaking personal programming projects and programming challenges, such as Advent of Code and the Euler Project.

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

Career Summary

OpenGamma Ltd – Client Delivery
Software Engineer

May 2021 – Present

OpenGamma is a SaaS company that uses derivatives analytics to help asset managers, hedge funds and commodity traders reduce inefficiencies in their operations caused by margin. At OpenGamma I am on the Client Delivery development team. My team's responsibilities are to complete any development work required to on-board new clients into OpenGamma's system. This role has vastly improved my development skills and ability to view my work from a high-level product perspective rather than a merely technical one.

Topics: SaaS, Maven, Data processing, Finance: ETD, OTC, cleared & bilateral products

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

Sept 2020 – April 2021

I started at CACI as a new graduate, and quickly established myself as a key team member. Whilst here I worked on a project for the Home Office, that once fully deployed will have tens of millions of users each year. 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 2018

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 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 AI-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: Java, Python, C#

Cloud: AWS, Kubernetes

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

References available on request.