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Personal Statement

I am currently in employment at Capital One, Nottingham, as a Senior Associate; Software Engineer and I am working on AWS Cloud solutions. I am not actively looking for employment, however I am always open to ideas.

I have well-rounded view of development, management and business. This comes from my varied background which has involved me being a quality assurance lead, software engineer, building a startup, winning hackathons, representing the UK in global competitions and researching at a top UK university.

I hold a first-class degree in Computer Science and Management and I achieved an award for the best dissertation during my stay. I made the most of my time at Nottingham University, working at hoverState at the same time. The reason for these achievements is simple; I love what I do. I enjoy development and I enjoy business, but most of all I love applying my learning to real-world problems and coming up with solutions which are simple but effective. I love open-source work and for a long period was a community leader for the cryptocurrency Storj, purely driven by self-interest.

Education, Academia and Certifications

Certifications:

Certified Amazon Web Services Solutions Architect Associate – 2017. Test score 87%

Oracle Certified Java 8 Associate. Test score 91%.

Research, School of Computer Science at Nottingham University.

As a researcher at the University of Nottingham, I developed a marking system for assessing Java coursework solutions. The system was named “The Marker’s Apprentice” and was used for the assessment of over 9,000 coursework submissions. A measurable increase in student submissions was recognised and as part of this work I achieved a commendable teaching award in 2016.

University Degree - First class, BSc Computer Science and Management (GN42) – University of Nottingham. Graduated 2012 and achieved the best individual dissertation award (certificate available) and held a position as course representative for the first year.

Degree Transcript

Computer Science only, business modules available on request.

Individual Dissertation Joint Honours	85%	Algorithms and Data Structures	61%
Computer Security	81%	Application Programming	66%
Introduction to Modelling and Optimisation	83%	Software Engineering Methodologies	81%
Graphical User Interfaces	75%	Database Systems	74%
Software Quality Management	79%	Introduction to Software Engineering	66%
C/C++ For Java Programmers	72%	Programming (Java)	86%
Computer Communications and Networks	75%	Algorithmic Problem Solving	82%
Web Programming and Scripting	91%	Mathematics for Computer Scientists	77%

Work Experience

Software Engineer, (Dec 2016 – present), for Capital One, Nottingham. Here I work with a team deploying APIs (both public and internal) into AWS, using Java, Spring Boot, Hibernate and Jenkins. I deal with auto-scaling, security concerns, JIRA, GitHub, Jenkins pipelines, deployment scripts and more.

Software Engineer, Java (May 2016 – Dec 2016) for MHR, Nottingham.

At MHR I was a Java Software Engineer. Here I gained experience in agile methodologies, Java EE, working a stack with Wildfly, Hibernate, Jackson and using tools such as Swagger and Jenkins.

Lead Quality Assurance (2010-2011) for hoverState(), California
I led a team of 5 software quality engineers to ensure projects met the standards required. Working with teams from UK, China and USA. Reference available on request. Reason for leaving: To concentrate on my final year my BSc in Computer Science and Management.

Quality Assurance Engineer (2009-2009) for hoverState(), California
Worked as quality assurance engineer, for projects based on Android, iOS, emails and web development, before being moved to a lead role. Reference available on request. Reason for leaving: Promotion.

My own projects and notable achievements

Nutbrown.io: Blog – available at https://nutbrown.io

TMA – The Marker's Apprentice

During time researching at University, I developed a system for the automated assessment of programming coursework submissions. The system has handled several thousand online submissions from England and China. Submissions to this system are made via a website, and together with projects outside University this has led to me using a wide range of technologies. Several parts of this are published in academic papers. The system utilises PMD, Checkstyle and unit tests and comprises of three parts, a server, marking client and submission website which communicate with each other via RMI.

Social Wage web application – I developed a webapp for connecting social media influencers to companies interested in marketing. The website was developed for a startup, "PromoteMybrand" and is available at https://www.socialwage.com. Shortly after the site development, the company received substantial investment and I was a key part of the start-up. It runs on a Jetty server, using Hibernate and Apache Tapestry 5 and connects to various social media platforms for verifying accounts and creating automated posts. The development was completed by myself and a friend, for the startup, and it is now managed by the two owners and investors.

Storj, open source project community leader – Storj is a decentralised object store which utilises spare storage capacity on users computers for remote and secure storage of files. The premise is that files are encrypted, split up into small parts (shards), and distributed to 'farmers' who are paid for storing file parts in SJCX (A digital currency). It uses various algorithms for proof of storage and redundancy. I wrote a Java client for communicating with the Storj network and uploading/downloading files and negotiating storage contracts. It is available on github and is still in active development (It works but isn't a finished product). I am also active in the community slack channel.

Oxford University Press handwriting – I developed a typing system for creating handwriting practise printouts for children. The system is fully cursive (joint letters), which means there are many possible different glyphs for each letter due to the different types of join. I worked on a set of VBA macros for calculating the correct character to get from the font when typing, to allow connections to the previous and following character. The software includes additional functionality for tramlines and dotted fonts (for children to write on). This is used at many schools throughout the UK. This project demonstrates my diversity in technology interests, a full description is available here.

UK Microsoft Excel Champion, 2006 - At the age of 16, I held the title of UK Microsoft Excel champion from Microsoft and Certiport, which lead to a trip to America to compete to become the world champion. Newspaper articles are available on request. More information can be found here.

Wedding web application – I got married on March 27th, 2016 and wrote (with my partner) a website to manage RSVP's, the registry (Tracking payments with PayPal), invitations, food preferences and music tastes. The website ran on AWS and uses Tapestry5 and Hibernate (Java) as the backend. If you wish to view the full page, it can be hosted and made available on request. This project shows my love for technology and before it went live on Amazon's servers, it was running happily on a Raspberry Pi.

Trollbox – Trollbox was an Android app for tracking the price of cryptocurrencies. It consisted of a database of historic prices which is filled by a cron job that executed a PHP page, which connected to the btc-e API and recorded the price data. This was served to the mobile app using a JSON from the PHP service. The mobile app also connected to a news feed (RSS) and an instant chat service (Websockets) for providing news. The app had a 4 star rating and around 500 installs (As of 19/06/2015). It was mainly built for my own personal use, but it's nice that other people used it. The BTC-E api has since changed and due to personal time restrictions, this app has not been maintained.

Football community news – I registered several of the new ".football" domains and set up a community news site. It allows users to create their own stories which were stored in an Amazon RDS database. User files (e.g article images) were stored in S3 buckets and the webapp itself was running on an EC2 instance. Unfortunately, due to the nature of user provided content, I took the sites down to avoid any potential copyright infringements. The website can be made available on request.

Spindroid – A fruit machine for Android with around 8,000 downloads and a 4-star rating. This was developed before Google Play Services was available, which meant I had to create a separate leaderboard and achievements database and PHP service. However, unfortunately I haven't had the free time to maintain it – although it worked well at the time, it doesn't work well on the latest versions of Android and is in need of some maintenance. This project was developed as my final dissertation for my BSc.

Relevant technologies I have experience with

Backend: Amazon Web Services – Certified solutions architect associate. Java EE, JPA, Jax-RS, Restful Services. Spring Boot Tapestry5 Web Framework. Hibernate entity relationship management. Comfortable with relevant tools such as Eclipse, IntelliJ, Maven, Jenkins, and more.	**Frontend** Enough HTML/CSS/Javascript to be able to write simple websites and use tools like Bootstrap and jQuery. However, back end development is my forte.
Software quality and testing: Familiar with Mockito, JUnit, CheckStyle, Findbugs, PMD, JIRA.	**Mobile**: Android development to a degree, though not my forte; demonstrated by Trollbox and Spindroid.