Daniel L. Middlecote *Software Engineer*

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Profile

I am a Software Engineer with professional Python experience. My main area of experience is Python based microservices, with mixtures of REST and RPC for API communication, that use Docker and Kubernetes to be built and deployed. I have used a combination of RDBMSes including MySQL, PostgreSQL and Oracle, and NoSQL DBs such as MongoDB, Elasticsearch and Neo4J as storage backends, along with Google Cloud PubSub and RabbitMQ as messaging systems. I have a keen interest in microservice architectures and principles, and love to keep up to date and involved in their open source communities.

Work

Antidote Technologies // Senior Backend Engineer // July 2018 - Present

- Mentoring and on-boarding junior members of the team
- Large system re-architecture project, bringing all microservices under a unified vision
- Introducing tech and architecture principles such as API-first and asynchronous messaging
- Introducing monitoring and tracing into our infrastructure using Prometheus and Jaeger

Antidote Technologies // Backend Engineer // July 2017 - July 2018

- Building and maintaining a range of Python microservices and legacy code that constitutes the whole of Antidote's backend services that use a range of technologies including Flask, Elasticsearch, Neo4J, MySQL and assorted Google Cloud products
- Maintaining and innovating with Antidote's infrastructure, being a core maintainer of our Kubernetes clusters that are running on GCP
- Building a new CI/CD pipeline, that continuously builds, tests, and deploys Antidote's services, drastically increasing deployment times and developer confidence. Written with Buildbot; utilises Docker, Helm, and Kubernetes
- Being involved with system design and the ever evolving architecture of the system
- Automation and continual improvement of core data pipeline processes

Geneity Ltd. // Development Team Lead // September 2016 - June 2017

- Responsible for the team's output, from design and development to deployment and maintenance
- Responsible for the performance of my team members, mentoring them, and reviewing their work and progress
- Be the go to person to unblock issues, in my team and other teams
- Manage many requirements for a very large company-wide project to successfully meet tight deadlines
- Complete development work to help my team's projects progress

Geneity Ltd. // Software Developer // September 2015 - August 2016

- Worked in a team of two, in the 'Bonus' sub team, which is part of the Core Sportsbook team
- Created a RESTful HTTP API for interacting with the Bonus system, which allowed the Bonus system to be a standalone produce
- Worked in a fast-paced environment, with quick turnaround times on new projects
- Core work on Geneity's main product, Sportsbook, from front end bug fixes to back end improvements and new features
- Gained experience with new technologies such as Docker, RabbitMQ, MongoDB and Tornado
- Gained experience in Python and Python web frameworks
- Used Oracle, which improved my SQL knowledge immensely
- Completed front end work with HTML, HTML templating engines, JavaScript, jQuery and CSS

Technical Skills

Advanced: Python, Docker, Kubernetes, Helm, Buildbot, Shell, Microservice architecture, Google Cloud Platform
Intermediate: SQL, Elasticsearch, RabbitMQ, Golang

Education

Merit in MSc Computing Science from Imperial College London // October 2014 - September 2015

- Undertook courses on C++, Logic, Prolog, Operating Systems and Computer Architecture, Computer Networks and Distributed Systems, Concurrent Programming, Databases and Algorithms
- Won the Entrepreneur First/Imperial Bitcoin Prize Competition for a group project building a Location Aware Bitcoin Payment Terminal which involved many technologies; Android, Java, Bluetooth, Bluetooth LE Beacons and Bitcoin (BitcoinJ). Also won the year prize for the best Group Project
- Individual Project researching Indoor Localisation using Bluetooth Low Energy and Inertial Measurement Units lasting 3 months
- Languages: Java, Android, C++, Prolog, Python, Swift, SQL knowledge

1st Class Degree in BSc Mathematics from Imperial College London // October 2011 - June 2014

- Completed courses in a variety of topics including Algebra, Statistics and Probability, and Fluid Mechanics
- Researched and completed an individual project in Special Relativity
- Lead a group project in Optimisation Methods
- Gained an advanced understanding of the Maple, MatLab and C programming languages
- Dramatically improved my analytical and problem solving skills

A Levels from Monmouth School // September 2004 - July 2011

A Levels: Mathematics A*, Further Mathematics A*, Physics A*, Economics A; GCSEs: 9 A*, 1 A