Lee Paul Johnson Wallace

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Professional Experience

Software Engineer Aug. 2021 – Present
Arm *Cambridge, UK*

- Supporting the development of Arm's internal developer tools using Java (Spring), React and Python.
- Developing scalable microservices with Spring and Kubernetes.
- Accountable for the implementation of advanced testing methods in the Team's CI/CD pipelines, including Mutation Testing and Static Code Analysis.
- Configuring the monitoring and alerting infrastructure with AWS, Grafana and Prometheus.

Director / Software Developer June 2020 – Present
Go Reg Go *Kent, UK*

- Designed and built an online business that aggregates motor vehicle data for customers from restricted-access Driver and Vehicle Licensing Agency (DVLA) JSON API's.
- Integrates online payments using the Stripe Payments Processing API. Payments exceeding £3000.
- Built using Node.js, Express, Bootstrap, Apache Cassandra, Kubernetes and AWS.

Education

University College London (UCL) London, UK
*Master of Science in Software Systems Engineering - **Distinction*** *Sept. 2020 – Sept. 2021*

- Optional Modules: Networked Systems, Information Retrieval and Data Mining.
- Recent Project #1: Designing and implementing a DNS hierarchy using Python and Docker.
- Recent Project #2: Analysing topology of router network using Dijkstra's algorithm to evaluate the Open Shortest Path First (OSPF) protocol configuration parameters.

University of Greenwich London, UK
*Bachelor of Science in Business Information Technology - **First Class Honours*** *Sept. 2016 – July 2020*

- Optional Modules: Information Technology Planning, Database Management and Administration.
- Final Year Project: Received 1st class grade. Discovered a positive correlation between rising knife crime in London and falling youth budget cuts using statistical analysis.
- Frequently developed software using Java, JavaScript, C#, Oracle12c and MySQL.

Projects

Improving memory optimisation in Java | *Java, Python, Azure* November 2020 – September 2021

- Empirically investigating the impact that Genetic Improvement algorithms may have on improving memory optimisation in Java applications, supervised by Dr. Justyna Petke.
- Several publications state that changing data structures in Java can produce optimisation gains, this project seeks to determine if genetic improvement tools can provide significant results for memory optimisation.
- Methodology: Compare GIN (Genetic Improvement Tool) against Trove, (a manual solution to improve memory optimisation) to see which technique provides faster or improved results.

Great Ormond Street Hospital Data Pipeline | *Python, Neo4J, TravisCI, Azure* September 2020 – April 2021

- Developing a custom patient data pipeline and graph database schema for GOSH, in order to facilitate recommended medication or treatment suggestions, enabled by machine learning for clinicians and doctors.
- Designed and programmed significant aspects of the pipeline, including the graph database schema and system architecture. Worked alongside Director of Data Science at KPMG, Dr. Rebecca Pope to achieve this.
- Hosted on Microsoft Azure with automated testing and continuous integration from Git using TravisCI.

Technical Skills

Programming: Confident using Java, JavaScript and Python
Systems: Linux (Ubuntu, Debian), Docker, Kubernetes, Bash, Raspberry Pi
Developer Tools: Git, AWS, Azure, Subversion, Jenkins, TravisCI , PyCharm, IntelliJ IDEA, Eclipse

Passing knowledge of Go, React, PHP and C.
Able to grasp new programming languages, frameworks, systems and APIs rapidly.