

LIAM VORSTER

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EDUCATION

University College Dublin

Dublin, Ireland

BSc (Hons.) Computer Science, University College Dublin

2019 - 2023

- Thesis: Decision Support System for Hypermedia Environments
- Relevant Coursework: Data Structures, Algorithms, Distributed Systems, Cloud Computing, Performance Engineering, Contemporary Software Development, Programming for Big Data, Machine Learning, Graph Theory, Multi-Agent Systems

TECHNICAL SKILLS

Languages: Java, Typescript/Javascript, Python, Scala, Bash

Frameworks: Spring Boot, Flask, Nodes.js, GraphQL, REST

Tools: AWS, IaC, Cloud Formation, Kubernetes, Docker, Unix, Git

WORK EXPERIENCE

Amazon Web Services

Dublin, Ireland

Software Development Engineer Intern

Mar 2022 - Sep 2022

- Designed and implemented a workflow engine for Amazon Enterprise Engineering (Identity and Authentication).
- The workflow engine was responsible for providing a flexible periodic workflow automation for querying customer information across many data stores. This enabled my team to better manage and query the datasets of over 15000 customers.
- I owned the project's entire software development lifecycle, after been given an initially semi-defined problem. Deployment was managed through a series of CI/CD pipelines for the AWS infrastructure.
- Gained an understanding of security protocols such as SAML, OAuth, OIDC, etc.

University College Dublin

Dublin, Ireland

Research Assistant

Jun 2023 - Present

- Performing research as part of the [CONSUS](#) research program, focusing on developing novel precision agriculture systems. Consistently engaging with agriculture experts to distill expert knowledge, meet customer needs, and enhance the system design process.
- Developing an enterprise-scale distributed knowledge graph to support next-generation smart agriculture systems.
- Integration of my Final Year Project (Hypermedia Decision Support System) into a Proof-of-Concept architecture as a central reasoning engine for a large-scale smart agriculture system.
- Developing a Nutrient Support System for assessing the risk of nutrient deficiencies in farms, enabling farmers and agronomists to respond preemptively to rapidly changing soil nutrient requirements.

PERSONAL PROJECTS

Hypermedia Decision Support System Final Year Project at UCD (2023, received A+) as part of the CONSUS research program. Designed and implemented an evidence-based novel Intelligent Decision Support System for knowledge graphs. The developed system is under integration into the live infrastructure of Origin Enterprises PLC. It will be used as a prototype decision support tool for agronomists and farmers that will be evaluated across the UK.

Maze Solver Built a personal project for exploring different maze generation (recursive division, Prim's algorithm, etc.) and path finding (Breadth First Search, Depth First Search, etc.) algorithms using a custom grid GUI.