

DAVID WILLIAMS

London, United Kingdom

+447835409896 [✉ davejjwilliams@gmail.com](mailto:davejjwilliams@gmail.com) [in linkedin.com/in/davejjwilliams/](https://www.linkedin.com/in/davejjwilliams/)

EDUCATION

University College London

Sep. 2022 – Sep. 2023

MSc Software Systems Engineering, Final Grade: **Distinction (76%)**

London, UK

Key Modules: Research Methods in Software Engineering (78%), Software Development Practice (79%), Practical Program Analysis (85%), Software Systems Integration (70%), Validation & Verification (82%), Complex Networks and Web (77.4%)

University of Surrey

Sep. 2018 – Jun. 2021

BSc Computer Science, Final Grade: **First-Class Honours (85%)**

Guildford, UK

Key Modules: Software Engineering (96%), Software Engineering Project (90%), Web Applications Development (89%), Programming Fundamentals (94%), Advanced Challenges in Web Technologies (74%), Computer Security (94%)

SKILLS

Programming Languages: I am proficient in Python and Java. I have experience with Ruby, JavaScript(/TS), C and C++.

Development Practices: Agile Methodologies, OOP, Requirements Engineering, Test-Driven Development

Technologies/Frameworks: GitHub, Docker, Kubernetes, SQL/NoSQL Databases, Web Dev (React, Express, Node, etc.)

Other Skills: Leadership, Academic Research/Writing, Critical Thinking, Excellent Written and Verbal Communication

Languages: English (Native), French (Native), Dutch (Fluent)

RELATED PROJECTS & EXPERIENCE

UCL

Oct. 2023 – Present

Research Assistant

London, UK

- Conducting research in the fields of Automated Program Repair, Genetic Improvement, and Large Language Models.
- Wrote material for publication in internationally renowned software engineering conferences and journals.
- Co-authored a research paper in collaboration with several UCL professors and Bloomberg employees based on the code review tool developed in my prior work with Bloomberg (see below).
- **Publication:** “User-Centric Deployment of Automated Program Repair at Bloomberg” – <https://arxiv.org/abs/2311.10516>
Accepted at the International Conference on Software Engineering (ICSE) SEIP 2024

UCL/Bloomberg

May 2023 – Sep. 2023

Team Lead – MSc Dissertation Group Project

London, UK

- Led a team of students through the research and full development lifecycle of a novel code review tool "B-Assist" for Bloomberg.
- Upheld clear communication with clients and stakeholders throughout, ensuring our work was punctual and closely aligned with their expectations, ultimately leading to our primary deliverables being completed a week prior to our deadlines.
- Conducted research in the fields of code reviews, GitHub Suggested Changes and Automated Program Repair (APR).
- Implemented B-Assist in Python as a Flask GitHub App and hosted tool demonstration sessions to gauge engineer interest.
- **Following positive engineer reception, B-Assist was deployed and is now in use in over 1000 Bloomberg repositories.**

UCL/International Federation of Red Cross and Red Crescent Societies (IFRC)

Nov. 2022 – May 2023

Software Engineer – Student Project

London, UK

- Conducted requirements-gathering activities to identify our client's needs fully and designed a microservice architecture solution.
- Developed a full-stack mobile platform in Flutter/Firebase allowing the IFRC to host focus group discussions (FGDs) asynchronously and remotely through a short video format.
- **Our tool successfully showcased a new format for FGDs and is being explored for future implementation by the IFRC.**

University of Surrey

Oct. 2020 – Jun. 2021

BSc Dissertation - "Trustworthy Communication Platform using Blockchain"

Guildford, UK

- Conducted research in the fields of Software Development, EC Cryptography, and Blockchain.
- Designed, implemented, and documented a semi-decentralised JavaScript web application developed using MERN stack and integrated Ethereum via Solidity smart contracts.

ACADEMIC AWARDS

Fivium Prize

Jun. 2021

"Best performance by a final year Computing student on the level 6 module, Advanced Challenges in Web Technologies"

Guildford, UK

Gold-i Prize

Sep. 2020

"Best performance on the Level 5 module, Advanced Object-oriented Programming using C++"

Guildford, UK