# **David Wilson**

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## PERSONAL STATEMENT

Computer Science graduate from University College Cork, with practical experience in full-stack development, cloud infrastructure, and DevOps practices. Skilled in Python, Java, and JavaScript/TypeScript, with hands-on experience deploying scalable applications using Docker, Kubernetes, AWS and GCS. Experienced in both academic and professional settings, with a proven ability to deliver reliable software solutions and automate workflows.

## **EDUCATION**

## **BSc Computer Science – 2.1 Honours**

University College Cork • Cork, Ireland • 2021 – 2025

**Year 4:** Android Development, Parallel & Grid Computing, Mobile & Wireless Networks, Network Security, IOT, AI, Principles of Compilation, Constraint Programming, Functional Programming

**Year 3:** Team Project, C-Microcontrollers, Advanced Java, Cloud Infrastructure, Ethical Hacking, Networks and Data Communication

**Year 2:** Logic Design, Intermediate Programming, Information Storage & Management, Usability Engineering, Operating Systems, Network Computing, Computer Architecture, Algorithms and Data Structures, Java Programming

Year 1: Web Development, Relational Databases, Python Programming, Foundations of Computer Science, Hardware Organization

## **Leaving Certificate**

St. Joseph's Patrician College (The Bish) • Galway, Ireland • 2019 – 2021

Subjects: Mathematics, Business, Accounting, DCG, Chemistry, English

## **EXPERIENCE**

## Software Engineer L1 • FleetOps

June 2025 - October 2025

Galway, IE

- Created and maintained scalable REST APIs in Python and TypeScript, ensuring reliability and performance.
- Engineered serverless solutions on Google Cloud Services (Firestore, Cloud Run/Functions, PubSub and BigQuery) to improve scalability and reduce overheads.
- Built ETL pipelines with Apache Beam, enabling efficient data processing.
- Automated workflows through webhook and external API integrations.
- Developed web scraping solutions using Playwright, streamlining data collection and reducing manual data handling.

## IT Intern • EMBL

March 2024 - August 2024

Heidelberg, DE

- Delivered full-stack Java/Spring Boot applications and APIs, delivering robust and scalable solutions.
- Enhanced performance of a data management application, reducing load times by 30% and simplifying code complexity.
- Deployed applications using Docker and Kubernetes, leveraging CI/CD pipelines for seamless delivery.
- Developed Python scripts to support the LDAP system, facilitating the migration and synchronization.
- Constructed custom APIs for large-scale databases, ensuring performance and data integrity.

## **PROJECTS**

#### Delphi

October 2024 – April 2025

- Designed and developed an automated programming analysis and feedback tool using Spring Boot (Java), React, PostgresSQL, Docker and Keycloak.
- Built secure REST APIs for user management, assignment workflows, and code submission endpoints, integrating with a PostgreSQL database and Keycloak for RBAC.
- Enabled real-time, scalable code evaluation via Docker containers, with unit testing, linting, and LLM-based AI feedback.
- Developed an intuitive frontend using Vite/React, Tailwind, and Monaco editor for inline code review and markdown-rendered feedback.
- Deployed on AWS (EC2, RDS).

#### Seraph

February 2023 - Present

- Developing a cross-platform SSH server manager using Electron (React, Vite, TypeScript, Tailwind, ShadCN, and Electron Forge).
- Building a responsive desktop UI with real-time SSH session handling, container lifecycle management, SFTP file transfers, and port forwarding tools.
- Implemented custom UI components for secure key authentication, live logs, and resource monitoring using Tailwind and ShadCN.

## **SKILLS**

Programming languages: Python, Java, JavaScript/TypeScript, C

**Web Development:** Spring Boot, Flask, Vaadin, React, Vite, Tailwind, Bootstrap **Databases:** PostgreSQL, MySQL, MongoDB, SQLite, H2, Firestore, BigQuery

Cloud & DevOps: Google Cloud (Cloud Run, Firestore, Functions, Pub/Sub, BigQuery), AWS (EC2, RDS, VPC, IAM),

Docker, Kubernetes, CI/CD

Data Engineering: Apache Beam, ETL pipelines, Web scraping (Playwright)

System Administration & Tools: Linux, Git/GitLab/GitHub, Bash, JetBrains IDEs, VSCode, Insomnia/Postman, Lens

## ADDITIONAL QUALIFICATIONS

**Spoken Languages:** English (Native/Bilingual), Hungarian (Native)

**Driving License:** Full, clean license

## REFERENCES

### **Available Upon Request**

#### **ACHIEVEMENTS**

#### CS50x – edX Harvard (online)

June 2022 - August 2022

- Completed an intensive and comprehensive course on computer science fundamentals and programming.
- Refined and honed skills in coding, project and time management, and independent thinking.
- Collaborated with peers in a small group on a final project (Gather), using skills learnt from the course.
- Enhanced knowledge in Python, C, SQL, algorithms and improved skills in Linux, Git, and debugging techniques.

#### IrlCPC - Competitive Programming

March 2023

- Achieved 7th place out of a total of 30 participating teams in the competition. Competing in a team of 3.
- Devised the most effective solution to one of the most challenging problems, resulting in the highest score.
- Exhibited proficiency in algorithm design, problem-solving, and programming skills in a competitive programming environment.
- Improved analytical and logical reasoning abilities by exploring programming techniques and algorithms.

## **INTERESTS**

**Technology:** Enjoy exploring electronics and computer hardware, with hands-on experience diagnosing and repairing systems, as well as troubleshooting across Windows, Mac, and Linux.

**Bouldering:** Improves problem-solving and teamwork through strategizing routes with partners in challenging situations. **Skiing:** Builds quick decision-making, coordination, and leadership by teaching peers and navigating high pressure, fast-paced environments.