

Henry Russell

Advanced Software Engineer

Work History

Advanced Software Engineer 2023 – Present

Zühlke, London

PostFinance (AWS Bedrock Chatbot UI) — Created a Vue interface integrated with AWS Bedrock for a chatbot supporting housing and financing queries, improving customer experience with responsive, conversational UI.

Co-op Funeralcare (Digital Products Team) — Developed Python services and Vue microfrontends as part of a blended engineering team. Helped create new customer journeys, run A/B experiments, and retire a legacy system to support customers finding a funeral home using Vue, TypeScript, Python, Django and AWS.

Professional Software Engineer 2022 – 2023

Zühlke, London

Handelsbanken (Mortgage Application Platform) — Developed a TypeScript/React application allowing customers to submit financial information for mortgage applications. Worked with design and backend teams to create accessible, streamlined journeys.

Computer Science Teacher 2022 – 2024

Academic Tutors Surrey

One-to-one A-level Computer Science tuition, including lesson planning, explaining core topics and providing coursework feedback.

Software Engineer Intern Summer 2021

Royal Holloway

Lead developer for a student module-selection web platform integrating with internal university systems and used by students.

Computer Science Teaching Assistant 2020 – 2021

Supported first-year programming labs and assisted with marking coursework.

Student Ambassador 2019 – 2020

Represented the university at open days, campus tours and events within the Computer Science department.

Maths and English Tutor 2017 – 2019

Kumon, Frimley

Tutored students up to A-level, helping them progress through the Kumon programme and build confidence in core subjects.

Education

MSc Software Systems Engineering

University College London (UCL) · 2021 – 2022 · Distinction

Research collaboration with Intel and Microsoft: developed a Visual Studio plugin for gesture-based, touchless interaction with the IDE.

BSc Computer Science (Software Engineering)

Royal Holloway, University of London · 2018 – 2021 · First-Class Honours (avg 80%)

- Computer Science Prize for outstanding final-year project (2021).
- Best Second-Year Software Engineering Group Project (2020).
- Top academic performer (2019).

A Levels & GCSEs

- A Levels: Computer Science (A), EPQ (A), Psychology (A), Maths (B).
- 14 GCSEs A*-B, including A in Electronics and A grades in Computing, Maths, English and Sciences.

Skills and Projects

Front-end web:

- React, Vue, TypeScript, component-driven architecture and modern UI patterns.
- Actress portfolio website: SEO-optimised portfolio with CI/CD deployment (wendyannedaloz.com).
- Creator website: interactive mini-games and an old-web themed design (babylle.neocities.org).
- Electron-based design-thinking tool built for IBM ideation workshops.
- Interactive HTML5 canvas and creative web experiments.

Full-stack web:

- Kanji-learning automation tools: built an unofficial API and a system that adds AI-generated mnemonic hints into a language-learning platform.
- Microservices-based multiplayer and real-time chess tournament application.
- React dashboards backed by Python API services.
- Royal Holloway module-selection system used internally by students.

Java:

- JavaFX chess engine with SQLite persistence layer.
- Autonomous Lego Mindstorms robot for search-and-retrieve tasks.
- Experience applying MVC, Observer and Factory patterns in test-driven builds.

Cloud, Tooling & Automation

- AWS Solutions Architect Associate (2024).
- Deploying and integrating applications across AWS and Azure.
- Linux-based development workflows and automation.
- Docker for lightweight multi-service development environments.
- ChatGPT Automation Pro: Firefox extension that automates ChatGPT workflows (addons.mozilla.org/en-US/firefox/addon/chatgpt-automation-pro).
- UserScript Compiler: converts userscripts into installable extensions. (<https://hrussellzfac023.github.io/UserScript-Compiler/>)

Hobbies and Interests

Web development, Japanese language study, chess and strategy games, psychology and human behaviour, photography, AI-augmented development, and lifelong learning.