

# Henry Russell

## Advanced Software Engineer

### Work History

#### **Advanced Software Engineer** 2023 – Present

Zühlke, London

##### **Co-op Funeralcare (Digital Products Team)**

*Vue, TypeScript, Python, Django, AWS, Contentful, Adobe Target*

Built and maintained Vue microfrontends and Jinja/Contentful templates to build key customer journeys (Direct Cremation, funeral home finder). Delivered a new finder application during a code-freeze incident, created a shared component library with support for web components, and implemented Adobe Target A/B tests (client-side scripting, variant logic, KPI monitoring). Contributed to Python/Django services, Lambda-backed integrations, and active monitoring. Facilitated agile ceremonies, tech-debt reviews, and knowledge-sharing sessions, in an award-winning team we reached a record 15.85% market share.

#### **PostFinance – AWS Bedrock Chatbot UI**

*Vue, TypeScript, AWS Bedrock*

Built a lightweight Vue front end integrating with AWS Bedrock for a mortgage chatbot in a 10-day delivery window, focusing on clean architecture and easy client extensibility.

#### **Professional Software Engineer** 2022 – 2023

Zühlke, London

##### **Handelsbanken (Mortgage Application Platform)**

*React, TypeScript, React Testing Library, Java, TDD, SAFE*

Developed regulated mortgage application journeys under strict constraints (no external libraries).

Implemented custom routing, state management, validation, and a debounced autosave system using React hooks and shared stores. Practised TDD and pair programming; collaborated closely with QA in a shift-left workflow. Integrated with internal banking systems (document generation, data services) and delivered a successful MVP as part of a blended team.

#### **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](http://wendyannedaloz.com)).
- Creator website: interactive mini-games and an old-web themed design ([babylle.neocities.org](http://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](https://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.