

Jakub Cabala

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London, UK

EDUCATION

Imperial College London

London, UK | **10/2022 – 06/2026 (Expected)**

MEng Mathematics and Computer Science

- On track for a **1st class degree** - Year 1 Total: 81.82%, Year 2 Total: 81.22%
- **Dean's List Year 2** - awarded to the best 10% of the cohort
- **Netcraft Java Prize** - awarded to the best 10 students of the module
- Relevant modules: Operating Systems, Compilers, Software Engineering Design, Computing Practical

Jan Długosz's Bilingual High School

Nowy Sącz, Poland | **09/2019 – 05/2022**

- **Advanced Polish Matura Exam scores:** Mathematics 98%, Physics 97%, English Language 98%
- **STEP 2 score:** Grade 1
- Laureate in the **AGH Diamond Index Olympiad** for Mathematics, Physics, and Computer Science

EXPERIENCE

Teaching Assistant | Imperial College London | Part-time

London, UK | **09/2024 – Present**

- Worked as a Personal Programming Tutor and presented additional materials to students, marked their coursework and provided feedback.
- Helped first year students understand the material covered in the Computing Practical 1 course including Haskell, Kotlin, functional programming, object-oriented programming, concurrent programming, and data structures.

Guidewire | Software Engineer Intern | Full-time

Cracow, Poland | **07/2024 – 09/2024**

- Developed a full-stack service that enabled clients to manage outbound connections and application certificates, and integrate with AWS PrivateLink.
- Maintained 3 services essential for functioning of a platform used by more than 500 insurance companies worldwide.
- Designed and implemented a metrics storage solution for Kubernetes, AWS calls, and internal system metrics allowing for fast error detection and troubleshooting of the services.
- Designed an end-to-end test suite and API mocking server for the front-end using Playwright and Mock Service Worker.

Code4rena | Smart Contract Auditor | Freelance

Remote | **06/2023 – 09/2023**

- Audited 10 projects and found 5 high and 1 medium-severity vulnerabilities.
- Completed 8 QA reports.

Ringier Axel Springer Poland | Web Developer | Part-time

Remote | **10/2022 – 12/2022**

- Developed a video publishing platform that resulted in a remarkable 11 million monthly user increase.
- Designed, implemented, and tested a solution that improved the web application's performance by 30%.

Ringier Axel Springer Poland | Web Developer Intern | Full-time

Cracow, Poland | **07/2022 – 09/2022**

- Developed, tested, and refactored the code of Onet.pl - a news site with more than 2 million users a day.
- Developed components used for playing and streaming video on the web application.

PROJECTS

Designing for Real People Group Project

05.2024 – 06.2024

- Designed and implement a solution for real world problems regarding student renting in London following the principles of agile development and human centered design.
- Applied techniques like thin slice development, prototyping, interviewing and both qualitative and quantitative data analysis to guide the project.
- The source code is accessible at: github.com/jCabala/drpf40

Doodle

03.2024 – Present

- Developed a solution that converts images into bitmaps in an open-source, 2D graphics library in Scala.
- Reviewed other contributors' code and engaged in discussions about future development.
- The repository is accessible at: github.com/creativescala/doodle

WACC Compiler¹

01.2024 – 03.2024

- Engineered a WACC² programming language compiler in Scala, utilizing the Parsley library for syntactic analysis.
- Implemented three stages of the compilation process: syntactic analysis, semantic analysis, and code generation.
- Developed a robust error and warning handling for an enhanced user experience.

PintOS¹

10.2023 – 12.2023

- Developed essential features for an operating system in C, including thread scheduling, concurrency support (locks, semaphores), thread sleeping, and system calls.
- Produced concise reports detailing program design and behavior.

SKILLS

Programming languages:

Java, JavaScript, TypeScript, Go, C, C++, Haskell, Kotlin

Front-end development:

React.js, Next.js, Redux.js, SCSS, CSS, HTML

Back-end development:

Spring Boot, Node.js

Testing:

Test Driven Development, Behavior Driven Development, Playwright, JUnit, Jest

Databases:

SQL, PostgreSQL, MongoDB

DevOps:

CI/CD, Docker, Kubernetes, Jenkins, DataDog

Programming tools:

Visual Studio Code, IntelliJ Idea, GIT, GitHub, GitLab, Bitbucket, VIM, Linux OS

Blockchain:

Smart contract development & auditing, Solidity, Foundry

Machine learning and data science:

Regression, Classification, SVM, Decision Trees, Clustering, scikit-learn, pandas

Languages:

English (C1; 8/9 IELTS score), Polish (native)

¹ In adherence to university regulations, I am unable to publicly disclose the repository for this project. However, the code is available for review upon request during a meeting or call.

² An educational, strongly typed, imperative programming language supporting function calls, arrays, pairs and IO