Jakub Cabała

kuba.cabala6@gmail.com | +447394413917 | +48600345815
linkedin.com/in/jcabala/ | github.com/jCabala

EDUCATION

Imperial College London   London, UK | **10/2022 – Present**
MEng Mathematics and Computer Science
- Integrated MEng degree
- **Year 1 Total:** 81.82 / 100
- Member of the Imperial Blockchain Society & Imperial Data Science Society
- Java Prize winner

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
- President of Nowy Sącz Scholarship laureate

EXPERIENCE

Code4rena | Smart Contract Auditor | Freelance   Remote | **06/2023 – 09/2023**
- Audited 10+ projects and found 5 high and 1 medium-severity vulnerabilities
- Completed a QA report for each project

Ringier Axel Springer Poland | Web Developer | Part-time   Remote | **09/2022 – 12/2022**
- Worked on a project 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 | **06/2022 – 09/2022**
- Developed, tested, and refactored the code of Onet.pl, the new site with more than 2 million users a day
- Developed components used for playing and streaming video on Onet.pl

Self Employed | Web Developer | Freelance   Szczawnica, Poland **| 04/2022 – 06/2022**
- Created websites for 4 local businesses using the Next.js framework

PROJECTS

PintOS[1]   **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

WACC Compiler[1]   **01.2024 – 03.2024**
- Engineered a WACC[2] programming language compiler in Scala, utilizing the Parsley library for syntactic analysis.
- The compiler goes through three pivotal stages: syntactic analysis, semantic analysis, and code generation.
- Outputting x86 assembly code in Intel Syntax, the compiler features robust error and warning handling for an enhanced user experience.

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[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

Doodle   **03.2023 - Present**

- Contributed to an open-source 2D graphics library in Scala.
- Developed code within the Java2D backend to convert images into bitmaps.
- Currently engaged in enhancing the library by implementing convolution support.
- The repository is accessible at: github.com/creativescala/doodle

SKILLS

•	**Programming languages & frameworks:**	JavaScript, React.js, Next.js	Additionally, knowledge of SCSS, CSS & HTML
		Python,	Libraries: NumPy, Pandas, Scikit-Learn, Matplotlib
		Scala,	Experience with parser combinators using Parsley library
		Solidity,	Experience with testing and deployment using Foundry
		Java, C, C++, Haskell, Prolog	
•	**Databases:**	SQL, PostgreSQL, MongoDB, GraphQL	
•	**Programming Tools:**	GIT, GitHub, GitLab, Visual Studio Code, VIM, Linux OS, Jenkins	
•	**Programming General:**	CI/CD, OOP, Functional Programming, Test Driven Development, Concurrent Programming	
•	**Machine Learning Techniques**	Regression, Classification, SVM, Neural Networks, Decision Trees, Clustering	Experience with ML techniques using Python
•	**Languages:**	Written and oral communication: English, Polish	**Polish Language Proficiency:** Native **English Language Proficiency:** C1 (8/9 IELTS score)

INTRESTS

Brazilian jiu-jitsu, Pure Mathematics, Movies

REFERENCES

Wojciech Niemiec from **Ringier Axel Springer**
gf1200@gmail.com | linkedin.com/in/gf1200