

Richard Blažek

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Skills

Programming: C++, Python, Rust, Haskell, Go, Scala, JavaScript

Web development: JavaScript, Linux, Bash, Docker, SQL, WebAssembly

Frameworks: PyTorch (machine learning), NumPy (math), Pandas (data analysis)

Platforms: GitHub, Amazon Web Services (AWS), Google Colab, Kaggle

Languages: English (C2 certified), Czech (native)

Work

Heidelberg University (May 2024–Aug 2024), Germany

Machine Learning Intern: Detecting cancer in mammography images. I increased the precision of our AI model and made the training process five-times faster (i.e. reducing training time by 80 %). I experimented with data augmentation and SMOTE (synthetic minority oversampling) to handle imbalanced classes.

Tech stack: Python, PyTorch, SciPy, NumPy, Pandas

MicroDoc.io (Sep 2022–Aug 2023), Ireland

Full-stack Developer: Start-up using AI to automate paperwork for doctors. I designed the web-page for medical dictation and implemented its functionality. I also made a queue for background tasks on the back-end. I did system administration, managing Docker containers and migrating our service from Google Cloud to Amazon Web Services (AWS).

Tech stack: Python, JavaScript, Tailwind CSS, Docker, Linux, SQL (PostgreSQL), Nginx, Amazon Web Services (AWS), Elastic Compute Cloud (AWS EC2)

Metio Software (Nov 2020–Jun 2022), Czechia

Web Developer: I worked on both front-end and back-end web development. Also, I coded a utility program in C#, automating some processes for our client.

Tech stack: JavaScript (with Vue.js), SQL (MySQL), PHP, C#, HTML, CSS (with SCSS)

Education

Trinity College Dublin (2022–2027): Computer Science, integrated Master's programme

HKUST (2024–2025): one-year international exchange in Hong Kong

Activities

Czech Mathematical Olympiad: National round 2022 participant

Czech Mathematical Olympiad in Programming: National round 2021 and 2022 participant

Patch: 2024 cohort of Patch, a start-up accelerator programme in Dublin

Projects

BF Compiler: Compiling BF into Linux ELF files for x86, implemented in OCaml

Prisoner's Dilemma: Tournament of prisoner's dilemma strategies, written in Rust

Both projects are online at <https://richardblazek.com>