

Alex Golubeckis

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Experience

- **Software Engineering, G-Research**
8/24 → Present — London, UK
 - Implemented and designed zero-trust access control components with minimal external backend dependencies, along with data presentation and custom access management user interfaces. (C# + Python + Typescript)
 - Automated developer tooling configuration workloads, allowing rapid onboarding and system adjustments, removing manual steps associated with these requirements and increasing reliability. (Go + Python)
 - Wrote custom data analysis tooling utilising disparate data sources for an improved view over allocated resources and their usage, leading to improved utilisation and decreased costs (10% less idle GPUs in a month). (Python)
 - Architected and engineered utilities and tooling to automate frequent workflows, as well as integrating open source projects; reducing user friction, support requests, and providing new capabilities. (Bash + Go + Python)
- **Platform Engineering Placement (Big Data & Linux), G-Research**
7/22 → 8/23 — London, UK
 - Developed a Kubernetes-based solution providing users with personal workspace environments that allow seamless access to petabyte-scale clusters. Automating creation, workflows, and tooling configuration significantly streamlined operations, with 18% technical staff utilisation in 1 month following release. (Bash + Go + Python)
 - Expanded automation and observability capabilities for Linux VMs, Trino, HDFS, and Spark. Notably, I contributed to the open-source project Trino, driving its development and improvement. (Bash + Python)

Projects

- **Music Library Sync** (Context Engineering + Python)
 - Developed an auto-sync system for updating a local music library with new Spotify additions, integrating generative AI for personalised music recommendations based on library updates and last.fm data. In the process learning to navigate and use existing systems to achieve novel outcomes.
- **Face Detection Neural Network** (Python)
 - Inspired by an AI talk I attended at the Royal Society in 2018, engineered a CNN to detect faces in photos and identify key facial features; developing an understanding of image processing techniques and core neural network mechanics.
- **2D Game Engine with Demo** (C++)
 - Built a 2D game engine with SDL2, accompanied by an Asteroids-inspired demo, enhancing the engine's performance and expanding the feature set to provide a more engaging gaming experience; deepening algorithmic optimisation and visual computing understanding.
- Other projects include an automated social media marketing platform (1.75m monthly engagements over 5 month period) (Python), cross-platform music link conversion tool (Rust), and a local LLM-driven personal search agent (Bash + Python)
- Currently working on a multimodal leisure travel platform (Go + Python + Rust + Typescript), attempting to reverse engineer social media recommendation systems (Python), and building a custom automated video categorisation system (Python)

Competitions

- **UKIEPC (2019)**, Secured 2nd place at the University qualifying for NWERC, this was achieved through effective teamwork, where we strategically and rapidly solved complex programming challenges under CPU time and memory constraints. (Python)
- **Launchpad (2019)**, Won the Best Business Award, after working with a team to prototype and develop a business plan for an environmentally conscious reward program and accompanying application. (Javascript + Python)
- **Launchpad (2020)**, Secured the Best Overall Award by working with a team to prototype, develop a proof of concept, and craft a business plan for a personal carbon emissions tracking application. We innovatively integrated gamified features to engage consumers. Our success led to admission into the acceler8 startup accelerator program. (Java + Typescript + Python)

Education

- **BSc Computer Science**, University of Bath
Graduated 5/24 — Bath, UK
 - Delivered projects including a fully local OTA (Python), an aggregated social media application (Python + Typescript), and a peer-to-peer student marketplace (Typescript), demonstrating practical application of programming skills.
 - Studied a range of subjects including systems architecture, data structures and advanced algorithms, machine learning and reinforcement learning, discrete and analytical mathematics, and networking.

Skills and Interests

- **Programming Languages:**
 - **Proficient:** Python
 - **Working Knowledge:** Go, Typescript, C#
- **Technical Tooling & Concepts:** Git, UNIX, REST APIs, Kubernetes
- **Interests:** Poker, Finance, Security, Psychology, Music, Travel