Josef Graf

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Employment History

Student Researcher (CRLB-GMEL)   **May 2024 - Present**
Population Health Research Institute, McMaster University.
- Optimized pipelines with improvements ranging from 2x, 20x, to even 64x in some cases.
- Created the `lmutils` library for R to enable more efficient high-performance computing on biobank-scale data thanks to the power and flexibility of the Rust programming language.

Founder & Software Developer   **Apr 2024 - Present**
v19 Corporation
- Developed Kanri Memberships, an all-in-one platform for membership management. Features include attendance tracking, billing, belt tracking, and more. Currently in early alpha.

Software Developer (Contract)   **July 2024 - Present**
Baseline Technologies (Remote)
- Modernized backend and implemented new backend modules such as an updated permissions system and license management.
- Created new PDF and email systems with improved performance, flexibility, and styling.

Lead Software Developer (Politics & War)   **Mar 2022 - June 2024**
Yellowstone Digital Media (Remote)
- Worked to improve and incrementally require legacy PHP codebase with new features such as a WebSocket-based real-time API for a playerbase of more than 6,000.
- Worked as lead game developer coordinating and managing teams of community volunteers including the Development, API, Game Design, and Quality Assurance teams.

Senior Karate Instructor   **Sept 2020 - Present**
Canadian Black Belt Academy
- Planned and delivered karate classes of up to 35 students from ages 4 to adult. Coordinated and managed junior instructors and interfaced with parents in regards to registration, retail, and the progress of their children.

Education

2022 – 2026 **BASc. Computer Science, McMaster University**. GPA: 11.1/12.0.
Coursework: Databases, Data Structures and Algorithms, Concurrent Systems, Web Programming, Computer Architecture, Discrete Math, Linear Algebra, Calculus, etc.

2018 – 2022 **High School Diploma, Villanova College**. GPA: 98%.

Skills

Languages Rust, Python, JavaScript, TypeScript, PHP, Java, C, Bash, Haskell, R

Tools MySQL, PostgreSQL, SQLite, Git, Docker, Linux, Cloudflare, GitHub Actions

Web HTML, CSS, React, Next.js, TailwindCSS, Laravel

Miscellaneous Experience

2022 **AP English Award**, Villanova College.

AP Physics Award, Villanova College.

2nd Highest Academic Average (Grade 12), Villanova College.