

# Josef Graf

✉ josef@mrville.dev

🐙 @mrville

🌐 Josef Graf

🌐 https://mrville.dev

## Employment History

- 📌 **Student Researcher (CRLB-GMEL, Dr. Guillaume Paré)** May 2024 - Present  
*Population Health Research Institute, McMaster University*
  - Optimized pipelines with processing speed improvements ranging from 2x to 200x.
  - 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  
*Kanri*
  - Developed [Kanri](#), an all-in-one management platform for martial arts schools. Features include membership management, attendance tracking, billing, belt tracking, scheduling, analytics, and more. Currently in late alpha.
- 📌 **Software Developer (Contract)** July 2024 - December 2024  
*Baseline Technologies (Remote)*
  - Modernized permissions, 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: 11.2/12.0 (A).  
Coursework: Databases, Data Structures and Algorithms, Concurrent Systems, Web Programming, Computer Architecture, Discrete Math, Linear Algebra, Calculus, Compilers, Networking, Cryptography, Statistics etc.
- 2018 – 2022 📌 **High School Diploma, Villanova College.** GPA: 98%.

## Publications

- 📌 Man, Alice, Leona Knüsel, **Josef Graf**, Ricky Lali, Ann Le, Matteo Di Scipio, Pedrum Mohammadi-Shemirani, Michael Chong, Marie Pigeyre, Zoltán Kutalik, and Guillaume Paré (Mar. 2025). "Identification of effect modifiers using a stratified Mendelian randomization algorithmic framework". In: *European Journal of Epidemiology*. ISSN: 1573-7284.  
🔗 [DOI: 10.1007/s10654-025-01213-0](#).

## 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, REST, GraphQL