Emilien **Breton**

PROJECTS

🔗 Personal Website

A PORTFOLIO FOR SHARING VARIOUS PROJECTS   *JavaScript • HTML • CSS • Markdown • NextJS*

- Designed and implemented appealing UI and optimized UX resulting in over 1500 unique visitors a month
- Utilized caching system and optimized site-wide accessibility resulting in Lighthouse score consistently over 95%

🔗 Stack-Based CPU

ASSEMBLER AND EMULATOR FOR A CUSTOM STACK-BASED CPU ARCHITECTURE   *Rust • Assembly*

- Wrote stack-based emulator that supports 44 CPU instructions and graphics through 32x32 grayscale display buffer
- Wrote assembler with macro support resulting in approximately 10% smaller Assembly source files
- Proved custom instruction set Turing complete through 🔗 implementation of Conway's Game of Life from scratch in Assembly language

🔗 DBLess Password Manager

A HASH-BASED, DATABASE-LESS PASSWORD MANAGER   *Python • JavaScript • HTML • CSS • NextJS*

- Developed 🔗 custom cryptographic procedure based on SHA-256 to implement trustless password manager that does not utilize a database
- Built 🔗 cross-platform PWA that reproducibly generates passwords on demand and copies them to the user's clipboard for convenience

More on 🔗 GitHub and in 🔗 Portfolio

EXTRACURRICULAR

🔗 Legacy Protocol   *March 18th 2022 — March 20th 2022*

SUBMISSION FOR DEFI THE CONVENTIONAL 2022   *JavaScript • React • Rust*

- Won first place in Finance category of Canada's largest DeFi hackathon along with 2500$ prize as part of a 3-member team
- Built fully functional 🔗 MVP frontend and backend layers within tight 36-hour timeframe thanks to efficient collaboration and teamwork under pressure

Group Chat Moderator

COURSE-SPECIFIC DISCORD SERVER CREATOR, OWNER AND MODERATOR   *University of Ottawa*

- Built, promoted, organized and maintained five Discord servers allowing over 500 students to find course material easily and collaborate efficiently
- Ensured seamless experience for all members by creating 🔗 Discord bot to help with moderation

EDUCATION

University of Ottawa

BSC WITH HONOURS IN COMPUTER SCIENCE   *Dropped out after first semester*

CONTACT

- 📍 Ottawa, Ontario
- 📞 (613) 913-9909
- ✉️ mail@emilien.ca
- ↗️ https://emilien.ca/
  PORTFOLIO
- 🐙 **github/** Bricktech2000
- 💼 **linkedin/in/** emilien-breton

TECHNOLOGIES

Programming Languages

Python • Rust • JavaScript • C++

Development Tools

Linux • Vim • Git • GitHub

Frameworks

React • NodeJS • Next JS • Express

Other Technologies

HTML • CSS • JSON • Markdown • LaTeX • C • Assembly • Raspberry Pi • Arduino

OTHER

Languages

French	*Native*
English	*Native*
Spanish	*Intermediate*
Russian	*Elementary*

Interests

Electronics • 🔗 Robotics • 3D Printing • 🔗 Drone Building • Stocks & Investing • Music