Emilien **Breton**

EXPERIENCE

Zeptile Software

SOFTWARE ENGINEER — WEB3 *Remote from Ottawa | October 2022 — Present*

- Working on small-scale project and getting up to speed with various technologies such as Web3 programming in Solidity and testing using Chai and Hardhat.

VOLUNTEERING

@ Hack the Hill

DEVELOPMENT MANAGER — DEVELOPMENT TEAM *Ottawa | May 2023 — Present*

DEVELOPMENT COORDINATOR — DEVELOPMENT TEAM *Ottawa | November 2022 — May 2023*

- Contributed in developing @ open-source participant tracker built with Next.js and Prisma, used by over **1000 hackers** and **50 organizers** throughout hackathon.
- Collaborated with infrastructure and sponsorship teams to build and maintain internal payment portal powered by Stripe and React.js, allowing for over **20 000$** in sponsor payments to be processed.

@ uOttawa CS Club

CLUB EXECUTIVE *University of Ottawa | June 2022 — Present*

- Collaborated with both other executives to brainstorm, organize and schedule a dozen events by giving talks and organizing workshops for over **100 students**.
- Reorganized Discord server of over **1000 members** by creating clearer roles and introduction channels, improving user experience and onboarding.

PROJECTS

@ Personal Website

A PORTFOLIO FOR SHARING VARIOUS PROJECTS *JavaScript • HTML • CSS • Markdown • Next.js*

- Designed and implemented appealing UI and optimized UX using Google Search Console resulting in over **5000 unique visitors** a month.
- Leveraged Cloudflare caching system and optimized site-wide accessibility resulting in Lighthouse score consistently over **95%**.

@ Atto-8 Microcomputer

A MINIMALIST 8-BIT MICROCOMPUTER WITH STACK-BASED MICROPROCESSOR *Rust • Assembly*

- Implemented @ optimizing assembler, @ elementary disassembler and @ instruction-level emulator in Rust for @ custom stack-based architecture.
- Proved instruction set Turing complete through @ implementation of Conway's Game of Life from scratch in Assembly.
- Working on building microcomputer physically using 74HC-series logic chips and 3D-printed parts.

@ DBLess Password Manager

A HASH-BASED, DATABASE-LESS PASSWORD MANAGER *Python • JavaScript • HTML • CSS • Next.js*

- Devised @ custom cryptographic procedure based on SHA-256 to deterministically generate passwords on demand without requiring encryption or password storage.
- Built @ cross-platform PWA with Next.js used by over **50 accounts** that loads 2FA tokens, generates passwords and copies them to user's clipboard for convenience.

📄 Legacy Protocol

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

- Won **first place** in Finance category of Canada's largest DeFi hackathon along with **2500$ prize** as part of 3-member team.
- Built @ MVP smart contract backend and API from scratch in Rust with no prior experience in Web3, all within tight 36-hour timeframe.
- Worked in collaboration with Terraform Labs post-hackathon to officialize our protocol and secure additional funding prior to Terra Luna collapse.

More on @ GitHub and in @ Portfolio

CONTACT

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SKILLS

Programming Languages

Rust • Python • C • JavaScript

Development Tools

Linux • Neovim • Git • Fish • GitHub • Docker

Frameworks

React • Next.js • Node.js

Other Technologies

HTML • CSS • JSON • YAML • Markdown • LaTeX • C++ • Assembly • Raspberry Pi • Arduino • VS Code • Figma • Notion • Cloudflare

OTHER

Spoken Languages

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

Interests

Electronics • @ Robotics • 3D Printing • Mathematics • @ Drone Building • Finance & Investing • @ Productivity • Music