DAVID BOSNJAK

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EDUCATION

McGill University — Joint Honours in Computer Science and Math   Sept. 2023 - May 2027
Major GPA: 3.91/4.0

SKILLS

Programming Languages	Python, C/C++, JavaScript, Java, SQL, OCaml, PHP, Bash
Frameworks & Libraries	React, Pandas, Matplotlib
Development Tools	Linux, Git, Data science, AWS

EXPERIENCE

Full Stack Software Intern   May 2024 - Jul. 2024
BuyAndSellABusiness.com   *Remote*

- Designed and implemented a user-friendly database management system using PHP, SQL, and JavaScript.
- Enabled the executives to independently manage user accounts, business listings, and critical database entries via an intuitive interface.
- Eliminated reliance on developers for manual SQL updates, streamlining operations and improving efficiency.

Engineering Instructor   Jun. 2023 - Aug. 2023
University of Ottawa Faculty of Engineering   *Ottawa, ON*

- Taught engineering, programming and problem solving in a summer camp environment.
- Developed and delivered structured weekly activities, leveraging strong communication and organizational skills to foster hands-on learning.

PROJECTS

C Compiler As part of the graduate-level course COMP520, I developed a robust C compiler in Java, translating C code into MIPS assembly. This project involved writing approximately 9,000 lines of code, demonstrating my proficiency in both programming languages and compiler design.

Programming Language Designed and implemented a custom programming language in Python which included a lexer, parser, and interpreter. Developed an interactive front-end in Java, featuring a shell for running code and comprehensive documentation to support users. (View code)

Accessible Email Client Developed an accessible email client in Java, featuring advanced accessibility options like text-to-speech, font enlargement, and a dyslexia-friendly font. It uses AI for email generation, reply suggestions, and translations, and includes a seamless user experience with a login interface and a functional email dashboard, similar to platforms like Gmail and Outlook. (View code)

EXTRA-CURRICULAR ACTIVITIES

- Distinction in several math, computer science and physics contests such as the Euclid, COMC, Caribou, CCC, CSMC, SIN and others.
- Competing player on McGill's Collegiate Chess League team.
- Winner of the Outaouis region 2021-2022 Most Outstanding Athlete Award in ski racing for U18 ENL/FIS.
- Ottawa multi-school chess tournament winner in 2022 and 2023.
- Former competitive ski racing coach.