

DAVID BOSNJAK

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EDUCATION

McGill University — Joint Honours in Computer Science and Math
Major GPA: 3.91/4.0

Sept. 2023 - May 2027

SKILLS

Programming Languages	Python, C/C++, JavaScript, Java, SQL, OCaml, PHP, Bash
Tools & Libraries	React, Pandas, Matplotlib, Linux, Git, 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, reducing manual SQL updates by 95%.
- Enabled company executives to independently manage 10,000+ user accounts and 5,000+ business listings via an intuitive interface.
- Developed data visualizations using Javascript charting libraries, providing real-time insights into user activities like logins, listings and transactions, which improved executive decision-making speed by 40%.

Engineering Instructor

Jun. 2023 - Aug. 2023

University of Ottawa Faculty of Engineering

Ottawa, ON

- Taught Python programming to a class of 30+ students in a summer camp environment, covering data structures (dictionaries, stacks, objects) and data analysis techniques (cleaning, aggregation, Matplotlib visualization).
- Developed and delivered structured weekly lesson plans using Jupyter notebooks, focusing on practical applications like data analysis.
- Improved student engagement by 50% through hands-on projects like building a weather data analyzer.

PROJECTS

C Compiler

- Developed a C compiler in Java for COMP520, featuring fast parsing, code generation and register allocation.
- Wrote approximately 9,000 lines of code, showcasing expertise in compiler design and low level programming.

Accessible Email Client

- Developed an accessible email client in Java with features like text-to-speech, font enlargement and dyslexia-friendly fonts, alongside AI-powered email generation and reply suggestions.
- Designed a user-friendly interface with a login system and functional dashboard inspired by platforms like Gmail.

COVID-19 Data Analysis and Visualization

- Built a Python data pipeline to analyze global COVID-19 data, creating visualizations to track vaccinations.
- Automated weekly updates using AWS Lambda and S3, eliminating manual efforts.

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.