Josh Bacon

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Education

University of New Brunswick — Fredericton, NB
B.S. in Software Engineering; GPA: 3.9 — *Expected May 2029*

Mount Allison University — Sackville, NB
B.S. in Computer Science; GPA: 3.8 — *Class of 2023*

Experience

Undergraduate Teaching Assistant — Sept 2026 – Present
Department of Computer Science, University of New Brunswick — *Fredericton, NB*

- Monitored weekly labs for 40+ students in scripting and solution automation
- Graded and provided feedback on programming assignments in Python, focusing on complexity analysis and code quality

Business Reporting Specialist — May 2021 – November 2025
Kent Building Supplies — *Dartmouth, NS*

- Built a product management workflow using PowerApps and PowerAutomate, clearing over $250,000 of dead stock
- Collaborated with 3+ departments concurrently to test and iterate custom process solutions
- Taught peers to utilize the Power Platform tools, saving hours of weekly recurring work

Projects

Vestlly | *TypeScript, React, Electron, Node.js, Python, Flutter, Dart*

- Used genetic algorithms to optimize stock evaluation functions and automated trading using Python
- Developed a desktop Electron application to analyze stocks and adjust automations
- Created a mobile app with Flutter to track portfolio transactions and performance

Code Gambit | *TypeScript, React, Redux, Node.js*

- Designed and developed a React web app that allows users to play chess by entering commands into a terminal
- Created a custom language on top of TypeScript to interact with the chess board, including full documentation
- Allows users to write scripts to execute move sequences based on custom logic

R.A.M. | *Flutter, Dart, PHP, MySQL, nginx*

- Built a full-stack social media mobile app with Flutter centered around technology related humour
- Created a self hosted backend using nginx that runs a PHP API and a MySQL database

Technical Skills

Languages: Python, JavaScript, TypeScript, HTML/CSS, Dart, Java, PHP, SQL
Frameworks/Libraries: React, Node.js, Electron, Flutter, Tailwind, nginx
Developer Tools: Git, Docker, Linux, PowerApps, PowerAutomate, PowerBI
Coursework: Data Structures & Algorithms, Operating Systems, Databases, Computer Networks, AI for News-Based Forecasting

Activities

Cyber Security Club — Sept 2025 – Present
University of New Brunswick — *Fredericton, NB*

- Attend weekly meetings to practice Capture The Flag (CTF) challenges
- Participated in informal CTF competitions