Sam Jackman

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PROFILE

Vancouver based structural engineer with an aptitude for using computational approaches in structural design. Currently pivoting into tech to play a part in developing software the future AEC industry will be dependent on. A drive to learn software through personal projects has been complimented by a focus on using automation to solve real-world problems in my professional work.

PROFESSIONAL EXPERIENCE

Structural Engineer | ASPECT Structural Engineers

Oct 2024 - Present

- Created digital workflows to automate structural analysis, design, and documentation, integrating APIs and cross-software interfaces in mixed visual and text-based scripting environments.
- Learnt complex new seismic design concepts whilst adapting to North American design codes. Applied this knowledge to numerous small projects whilst adhering to deadlines and quality control processes.

Structural Engineer | BDP

Sep 2021 - Sep 2024

- Coordinated with architects and other design disciplines to produce structural designs which met the
 project brief whilst avoiding unnecessary cost or complexity.
- Automated data processing and visualisation of structural analysis results using Python.

PERSONAL PROJECTS

- iOS Fitness App (Swift, Firebase): an MVP social media style app with user authentication, a simple frontend, and social elements such as following/unfollowing and workout sharing. Implemented a cloudbased backend using Firebase Authentication, Firestore (No SQL DB) and Python Cloud Functions.
- 'EasyFX' Web App (Flask, HTML/JS): a simple currency conversion app with real-time FX rates using a Flask backend and HTML/JS frontend deployed on Heroku.
- 'FollowMe!' Web App (Flask, HTML/JS, Firebase): a feed type app for following other users, with code and structures recycled and adapted from my iOS app using Cursor.
- Python Automation: simple personal productivity tools, including a Python web scraper used to book tennis courts in busy locations, and another to track and visualise personal investments.

EDUCATION

Master of Civil Engineering with First Class Honours, University of Bristol

2017 - 2021

• Awarded the Design Project Award, Francis Memorial Prize, and Nash Memorial Prize for top performance in group and individual projects.

TECHNICAL SKILLS

- Languages & frameworks: proficient in Python, Swift, Firebase, and with typical AEC computational tools. Experience with web app development using JS/HTML and Flask.
- Development practices: knowledge of OOP, data structures, architectural principles, version control with Git, cloud deployment, and LLM-assisted coding.

INTERESTS

Sports and outdoors enthusiast. Primarily moved to Vancouver to capitalise on nearby skiing but now captivated by the limitless hiking, biking, and other activities available locally.