Jaden Majid

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I'm a penultimate year Computer Science student at the University of British Columbia with a background in software development and machine learning, shaped by a life lived across ten moves in Asia and North America. I thrive in fast-paced environments where technical skill meets a global perspective. I'm also an avid gym goer, skier and outdoor adventure seeker in my free time. You can find me most days at my desk watching my model train or on a ski hill.

Experience

Technology and Digital Intern | *Disneyland* | *Hong Kong* Sept. 2024 – July 2025

- Re-engineered database interface jobs from legacy Batch processes to a 12.5x faster Powershell system.
- Reduced data interface project cost by 95% compared to a previously submitted third party quote.
- Automated over 1,100 work-hours per year of previously manual workflows for cross-functional operations teams.
- Developed and maintained a full-stack app to digitize record-keeping and automate security incident analysis.

Digital Consulting Intern | *Deloitte* | *Hong Kong* July 2024 – Aug. 2024

- Developed Python scripts to generate synthetic testing data, increasing QA efficiency for marketing deployments.
- Managed full lifecycle ownership of project feature from planning to client acceptance, reducing feature cost by 80%.

Teaching Assistant | *UBC Physics Department* | *Vancouver, BC* May 2023 – Apr. 2024

- Facilitated lab sessions and lectures for 100+ students, debugging numerical simulations and grading assignments.

Personal Projects

Super Resolution GAN Image Upscaler | *Python, PyTorch* Jan. 2026 – Ongoing

- Engineered a Generator-Discriminator image upscaling architecture utilizing bottleneck residual blocks.
- Implemented the discriminator network without pre-trained VGG weights achieving a non-collapsing stable loss regime; enabling the generator model to learn high-frequency textures through adversarial competition.
- Integrated a global skip connection by summing learned high-frequency residuals with a bicubic-interpolated base, accelerating convergence, stabilizing the generative training regime, resulting in sharper and higher quality results.
- Developed models with PyTorch primitives with modular block architectures to optimize for training hardware.

MNIST in C | *C* Nov. 2025 – Dec. 2025

- Engineered a feed-forward neural network from first principles using only glibc, achieving 97%+ test accuracy.
- Implemented backpropagation, and stochastic gradient descent from first principles with arbitrary layer topologies
- Developed a unit tested linear algebra library (GEMM) with a custom serialization format for persistence.
- Managed pointers and manual memory allocation, with 0 leaked memory using Valgrind for dynamic analysis.

InsightUBC | *TypeScript, Vite* Sept. 2025 – Dec. 2025

- Engineered a full-stack analytics platform to parse and query the UBC PAIR dataset using a custom JSON-based query protocol; implemented relational algebra operations (selection, filtering, grouping, and aggregation).
- Leveraged TypeScript's type and inheritance system to implement a prescribed EBNF grammar, building a type-safe parser that validated abstract syntax tree nodes during query construction.

WikiScrape | *Rust, Python* Jan. 2025

- Built a multi-threaded web crawler using Tokio and Reqwest to map Wikipedia articles as a directed graph.
- Optimized scraping by implementing an async worker-pool pattern, with a burst throughput of 2900 requests/s.

Skills

Programming/Scripting Languages: Python, C, Rust, TypeScript
Libraries/Tools: Numpy, PyTorch, Matplotlib, Vim, Linux
Languages: Native English, Intermediate Chinese, Intermediate French

Education

The University of British Columbia Sept. 2021 – Dec. 2026
B.Sc. Computer Science, Co-op Program *Vancouver, Canada*

Relevant Courses: Advanced Machine Learning, Software Engineering, Parallel Algorithms, Data Structures & Algorithms