Jake Feldman Starosta

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Skills

Programming: Python, C/C++, Java, MATLAB, JavaScript, HTML/CSS
AI/ML: PyTorch, LLMs & Embeddings (Google, OpenAI)
Hardware: Circuit Analysis, LTSpice, Arduino, VHDL, SolidWorks

Education

BEng in Applied Mathematics and Computer Engineering – Queen's University Sept 2023 - April 2027E

3.95 GPA, Dean's List (all years)

Relevant courses: Electronics, Computer Architecture, Digital Systems, Microprocessors, Algorithms, Software Development (C++), Databases, Data Structures (C), Computer Science (Java), Control Theory

Work Experience

Engineering Consultant Intern – *Corecurrent Solutions* May 2025 - August 2025

- Reverse-engineered electronic components to identify IP infringement
- Pitched and implemented a tool that reduced IC identification time by 60% using vectorized search and a classification model achieving 94% manufacturer prediction accuracy

Full-Stack Developer – *EduTutor* Jan 2025 - April 2025

- Designed a generative quiz-creation tool powered by LLMs
- Shipped a quiz editing and saving feature, improving usability for students

Workshop Tutor – *EngLinks* Sept 2024 - April 2025

- Taught large-group calculus tutorials for 250 engineering students at Queen's

Volounteering Experience

Conference Chair – *Canadian Undergraduate Conference on AI* April 2025 - Present

- Leading a team of 12 volunteers to run the largest undergraduate conference on AI, hosting 340 attendees
- Working with top AI companies (Google, AWS, Cohere, Accenture), research labs (Vector Institute, Mila, Connected Minds) and renowned speakers (Geoffrey Hinton, Shivon Zilis)
- Expanded to Montreal, built partnerships with UofT, AISF, and the AI Collective, and launched a newsletter
- Managing an operating budget of $30k

Director of Design – *QMIND: Queen's AI* April 2025 - Present

- Overseeing three AI projects: an automated medical-imaging triage system, an embedded neural network on a mobile robot and a retrieval-augmented generation consulting collaboration
- Leading advanced tutorials including topics in neural architectures, optimization, and technical research

Project Manager – *QMIND: Queen's AI* April 2024 - April 2025

- Managed a team of 6 undergraduate AI researchers to design a novel ML approach to genre transfer for symbolic music
- Researched 20+ papers to identify opportunities for cutting-edge work
- Presented our work at CUCAI 2025 and the Toronto AWS office

Publications

Symbolic Music Genre Transfer Conference Proceedings

A novel adversarial VAE for music genre transfer that leverages instrument-specific features.