

Jake Feldman Starosta

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Skills

Programming & Development: Python, C, C++, Java, JavaScript, MATLAB, HTML, CSS, React, Git, Google APIs
AI/ML: PyTorch, Sklearn, Pandas, NumPy, LLM & Embedding Model APIs
Hardware & Design: SolidWorks, Circuit Analysis, LTSpice, Arduino, VHDL

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 over \$30k
- Engineering Consultant Intern – Corecurrent Solutions** May 2025 - August 2025
- Reverse-engineered electronic components to identify IP infringement
 - Proposed and implemented a tool to reduce the time to identify ICs by 60% using vectorized search
 - Proposed and implemented a classification model to predict IC manufacturers with 94% accuracy
- 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
- Workshop Tutor – EngLinks** Sept 2024 - April 2025
- Taught large-group calculus tutorials for 250 engineering students at Queen's
- Full-Stack Developer – EduTutor** Jan 2025 - April 2025
- Designed a generative quiz-creation tool powered by LLMs
 - Implemented quiz editing and saving features, improving usability for students

Publications

- Symbolic Music Genre Transfer** Conference Proceedings
- Explored a novel adversarial VAE architecture for music genre transfer by leveraging instrument-specific features.

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, Mechanics, Electromagnetism, Linear Algebra, Differential Equations, Economics, Algorithms, Software Development (C++), Data Structures (C), Computer Science (Java)