

MIKAËL D'AGOSTINO

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EDUCATION

McGill University - GPA: 3.9/4.0 BSc. Computer Science & Artificial Intelligence with a Math minor	Sep 2023 - Dec 2026
University of Melbourne Semester Abroad on Exchange	Feb 2025 - Jun 2025

PROJECTS

Swag - Social Media App & Website	Jan 2023 - Present
<ul style="list-style-type: none">Designed and built from scratch a fully functional and scalable full-stack social media platform with Next.js and MongoDB for the website & API and React Native with Expo for the mobile app.Integrated backend systems with AWS S3, Lambda, Rekognition & CloudFront for media storage, processing & encoding, media moderation and caching, improving load times by 40%.Implemented real time messaging with SocketIO.Deployed on AWS EC2 using a Cloudflare proxy for improved security and scalability to handle potentially 5000+ users at any given time.	
Freckers - Semester Project for COMP30024 at the University of Melbourne	Mar 2025 - May 2025
<ul style="list-style-type: none">Designed a competitive AI agent for the two-player game Freckers using a custom Minimax algorithm with a dynamic heuristic evaluation function.Engineered performance optimizations including dynamic depth search, opening move caching, and a memory-efficient node representation reducing memory usage by up to 80%.Achieved 99% win rate against random agents and 93% against greedy agents in over 60 simulations.Explored Alpha-Beta pruning, Monte Carlo Tree Search (MCTS), and neural network integration as alternative strategies for future enhancement.	
AutoBot - Winner of McGill CodeJam 2024 Hackathon	Nov 2024
<ul style="list-style-type: none">Designed and developed an AI-driven chatbot to assist car dealerships in recommending vehicles based on real-time conversational input with a Flask API.Built a custom recommendation engine leveraging named entity recognition (NER) and aspect-based sentiment analysis.Enhanced natural language understanding through word embeddings and sentiment modeling, significantly improving recommendation precision.Awarded 1st place in the Matador AI-sponsored competition, outperforming 10+ competing teams.	

TECHNICAL SKILLS

Languages: JavaScript, Java, Python, HTML, CSS, C, Haskell
Developer Tools: AWS (S3, Lambda, CloudFront, Rekognition, EC2), MongoDB, Cloudflare, Nginx, Git
Frameworks & Libraries: Next.js, Node.js, React.js, React Native, Expo, SocketIO, Flask

PROFESSIONAL EXPERIENCE

City of Côte St Luc Recreation - Tennis Club & Arena Attendant	Jun 2022 - Feb 2025
<ul style="list-style-type: none">Manage daily operations of the tennis club, including equipment inventory, and facility maintenance.Oversee tennis & skating events such as tournaments, parties and leagues to ensure smooth execution. Provide customer service to skaters and club members, addressing inquiries, resolving issues, and fostering a positive atmosphere.Maintain accurate records of memberships, court bookings, and financial transactions.Ensure compliance with club/arena policies and regulations, prioritizing a safe and welcoming environment.	

EXTRA CURRICULAR

Startupfest Volunteer	2024 & 2025
<ul style="list-style-type: none">Volunteered at Canada's leading startup and tech festival, supporting event logistics, registration, and attendee experience for 7,000+ participants across 2 consecutive years	

LANGUAGES

- English:** Proficient
- French:** Proficient
- Italian:** Conversational