

Omer Chandna

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EDUCATION

Toronto Metropolitan University

Toronto, ON

Honours Bachelor of Science in Computer Science (Co-op)

Sep 2022 – Apr 2027

Coursework: Data Structures and Algorithms, System Design, Object Oriented Programming, Operating Systems.

EXPERIENCE

Deloitte

Jan 2026 – Present

AI Engineer Intern

Toronto, ON

- **Architected agentic AI systems** combining **LLMs**, **RAG** (retrieval-augmented generation), and **multi-agent orchestration** to **automate high-leverage research** workflows.
- Built an internal **agentic research platform** unifying data from 10+ sources through **custom APIs**, **MCPs**, **retrieval pipelines**, and synthesis/orchestration agents; **saving consultants 15+ hours a week**.
- Implemented **evaluation checks**, **guardrails**, and stakeholder-informed rollout for **enterprise-grade GenAI tools**.

MetRocketry

May 2024 – Present

Lead Engineer

Toronto, ON

- **Developed a trajectory prediction algorithm** for a 2-axis gimbal tracking system; **improved position estimates 38%** on simulation/flight logs and achieved **95% tracking uptime** under launch conditions.

Lassonde School of Engineering

Jun 2025 – Sep 2025

Lead Research Assistant

Toronto, ON

- **Led 5+ RAs** and managed scope/agile sprints, **delivering the project on time and under budget**.
- Implemented **perception and visual-inertial localization (GPS-denied) modules**, enabling a **scalable ROS 2 architecture** for **autonomous navigation**.

Airbus

Jun 2025 – Aug 2025

Machine Learning Engineer Intern

Waterloo, ON

- Built an **LLM confidence-scoring pipeline** using **multicalibration + quantile bucketing** to align predicted confidence with empirical correctness on test sets.
- Improved **F1 by 17%** by **fine tuning open source models** (Flan-T5, Mistral, LLaMA 2) on **AWS SageMaker**.

Software Engineer Intern

May 2024 – May 2025

- Owned backend workstreams in Agile sprints; resolved CI/CD failures across 30+ deployments, reducing release friction.
- **Scaled a backend data service** using **C#/.NET** and **load balanced APIs**, **cutting response time 80%** and supporting **4x concurrent user load** with no downtime or degradation.
- Optimized **hot SQL paths** (indexes + async pipelines), **improving retrieval 34% and throughput 37%**; **reduced page load 70%** using caching and instrumentation (Datadog APM).

Autonomous Vehicles Laboratory @ TMU

Jan 2024 – Jan 2025

Research Volunteer

Toronto, ON

- Engineered **real-time CV pipelines** (object detection + optical flow) using **Python, OpenCV, YOLO**, improving detection accuracy via dataset tuning and pruning.

PROJECTS

[tmguessr.ca](#) — GeoGuessr for TMU Campus

- Built and launched a GeoGuessr-style web game for TMU (**150+ users in 24h**); engineered **Next.js/React + Supabase (Postgres/Auth)** with **custom APIs** (daily challenges, submissions, leaderboards) and image optimization via Sharp.

Find My Shark — NASA Space Apps Toronto 2025 Hackathon Winner (Most Impactful)

- Built a geospatial **ML pipeline** that ingests NASA satellite datasets, computes biophysical features, and serves risk maps via FastAPI + PostGIS + Leaflet, enabling targeted **patrol planning for NGOs/governments**.

TECHNICAL SKILLS

Languages: Python, C#, JavaScript/TypeScript, C++, SQL, Bash.

Frameworks/Libraries: .NET, Electron, Next.js, React, OpenCV, TensorFlow, PyTorch, Pandas, scikit-learn, ROS 2.

Data & Protocols: NoSQL, REST, WebSockets, Embedded Systems, MAVLink, ArduPilot.

Tools & Infra: Git, Docker, Datadog, DotTrace, AWS (EC2, S3, SageMaker), CI/CD, MongoDB, Vercel, Supabase, Postgres.