

Hoang Vu

647-540-7166 | Email | LinkedIn | Github

EDUCATION

York University GPA 7.69/9 <i>Honours Bachelor of Science in Computer Science</i>	Sep 2024 – Apr 2026 <i>Toronto, ON</i>
Sheridan College GPA 3.78/4 <i>Advanced Diploma in Software Development and Network Engineering</i>	Sep 2020 – Dec 2023 <i>Oakville, ON</i>

PROJECTS

- MindForge** | *FastAPI, React, TypeScript, Supabase, OpenAI, Groq, Hugging Face, Ollama CLOUD*
- Built microlearning platform auto-generating personalized lessons with quizzes in **3 minutes**
 - Designed **autonomous 7-agent system** (orchestrator, researcher, content writer, TTS, quiz generator, QA, curator) with retry logic and fallback providers **reducing content creation costs by 80%**
 - Engineered real-time content aggregation from **16+ APIs** (arXiv, NASA, HackerNews, BBC, Reddit) with intelligent source selection
- Academic Scheduler** | *FastAPI, React, TypeScript, Supabase, ERNIE, PaddlePaddle, LightGBM*
- Built intelligent scheduler reducing assignment deadline clustering by **40%** across **50 student schedules** compared to manual planning baseline
 - Integrated PaddleOCR-VL for syllabus parsing (**92% field extraction accuracy**) and fine-tuned ERNIE on **100+ course schedules** to predict workload distribution patterns
 - Deployed to Google Cloud Run with GitHub Actions CI/CD and rate limiting management for API cost

EXPERIENCE

- Software Developer** May 2023 – Aug 2023
SIRT Centre Toronto, ON
- Designed and implemented multiplayer menu system in C++ featuring character selection, persistent profile management and real-time session initialization for **10+ concurrent players**
 - Decreased crash frequency by **resolving 5+ memory leaks and race conditions**, using systematic debugging, thread-safety analysis, and unit tests
- Software Developer** May 2022 – Dec 2022
Cloud DX Oakville, ON
- Built voice controlled interaction system for HoloLens2, showcased at **ANA Avatar XPRIZE 2022** with **50+** live demonstrations
 - Optimized Arduino-HoloLens communication by refactoring C++/C# data processing, **reducing latency by 30%** for real-time vital sign display
 - Implemented gesture-based interaction for HoloLens2, **improving task completion speed by 20%** through usability testing
- Software Developer** Jan 2022 – Apr 2022
Medtech Canada Oakville, ON
- Migrated Unity VR clinic simulation from deprecated XR Rig to XR Origin architecture resulting in **40% faster scene load times**
 - Rapidly resolved a critical rendering bug within **48 hours**, restoring accurate motion tracking and eliminating all hand-tracking glitches

TECHNICAL SKILLS

Languages: Java, C#, Python, C++, TypeScript
Frontend: React, Bootstrap, jQuery
Backend: FastAPI, Spring Boot, ASP.NET, Node, Express
Database: PostgreSQL, MongoDB, Supabase
Tools: Git, VS Code, Visual Studio, Eclipse