Huu An Duc (Jack) Le

416-617-3686 | huuanducle@gmail.com | jack-le.com | linkedin.com/in/huu-an-duc-le | github.com/notjackl3

Education

University of Toronto 2028

Computer Science - Bachelor of Science - 3.76 GPA *Toronto, Canada*

Courses: Software Design , Systems Programming, Computer Organization, Data Structures & Analysis, Database Management Systems, Web Programming, Theory of Computation

Leaderships: Director of Operations (GenAI Genesis), Vice-President of Tech (UTMSAM), Organizer (EmberHacks), Tech Associate (UTMFA), Hackathon Mentor (Ignition Hacks)

Experiences

Research Assistant Sep 2025 – Present

University of Toronto *Toronto, Canada*

- Collaborated with PhD students and professors to **develop an AI coding assistant for 1,000+ students**, creating clear explanations, alternative solutions, and design rationales to enhance technical understanding
- **Analyzed 1,600+ data points** using Pandas/Matplotlib to find trends and optimize tool efficiency
- Worked on microservice using TypeScript and OpenAI API, added contextual insights to AI responses

Software Project Lead Aug 2025 – Present

UofT Blueprint + Toronto Crisis Center *Toronto, Canada*

- Led **8 developers**, organized development tickets to create a volunteer management app for TRCC
- Deployed Next.js (TypeScript) app with Docker and CI/CD pipelines, cut deployment failures **by 50%**
- Enforced **80% test coverage** (Vitest), built integration test structure, and added Husky commit hooks
- Improved delivery time **by 30%** for stakeholders using Git, Github workflows and SCRUM framework

Tech Support Assistant Aug 2025 – Present

UTM Career Center *Toronto, Canada*

- Created AODA-compliant documents and designed inclusive UI/UX interfaces for **16,000+ students**
- Implemented JavaScript scripts for data-entry workflows, saving **$1,000/month** in operational cost
- Leveraged AI tools to optimize code and save time, delivering projects **1 month ahead** of schedule

Standard Operation Procedure Intern May 2025 – Aug 2025

TRG International *Ho Chi Minh, Vietnam*

- Built chatbots with automated workflows, reducing communication time **by 40%** for **150+ employees**
- Created Python tools to compare documents and track live changes, saving **20+ minutes/review cycle**
- Geocoded **100+ addresses** and mapped staff locations to analyze optimal commute paths for HR team

Projects

Vibe-Learn **Java / Spring Boot / Apache Kafka / MongoDB / Docker / Grafana**

- Built event-driven VS Code extension capturing real-time code changes, processing **1,000+ events/session** with **sub-100ms latency** across **4 Spring Boot microservices** using Kafka message stream and MongoDB database
- Conducted load and stress testing, simulating **20+ concurrent users** generating **50-500 events/seconds**
- Optimized query using aggregation and producer pooling, reducing request latency **from 120ms to 2ms**
- Made real-time Grafana dashboards to monitor service health, connection pool time, and partition lag

SkySync **Python / JavaScript / Express.js / Node.js / React.js / MongoDB**

- This app identifies aircraft groups that can fly in "bird formations" to reduce fuel, saving up to **4%/trip**
- Designed a flight-pairing algorithm to find **600K+ plane formations** by proximity and schedule overlap
- Integrated gradient descent scripts with the Node.js backend to compute fuel-optimal routes in real time
- Handled **1.6M+ rows of flight data** with MongoDB indexing, reducing query delay **from 15s to 500ms**

LeReplacer (hackathon winner) **JavaScript / Express.js / Node.js / Handtrack.js**

- Built Chrome extension with ML models to detect and replace human facial features with **95% accuracy**
- Implemented OAuth flow by integrating Twitter API for automated posting, sharing **20+ daily tweets**
- Created a web scraping engine that extracts on-screen pages' metadata to provide data for AI processing

Technical Skills

Languages: Python, JavaScript/Typescript, Java, C, SQL, HTML/CSS
Frameworks: Spring Boot, Node.js, Next.js, Django, React.js, FastAPI, Flask, Tailwind CSS, Vitest, JUnit, PyTest
Technologies: Git/Github, PostgreSQL, MongoDB, Supabase, AWS, Google Cloud Platform, Apache Kafka, Docker
Coding Tools: VS Code, IntelliJ, Pycharm, Gemini CLI, Cursor, Claude