Huu An Duc (Jack) Le

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EDUCATION

University of Toronto   2028
Computer Science - Bachelor of Science - 3.9 GPA   *Toronto, Canada*

Courses: Software Design (Object-Oriented Programming, Java), Systems Programming (Unix/Linux, C),
Computer Organization (Assembly), Data Structures & Analysis, 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** that generates and explains code through clear steps, alternative solutions, and rationales behind each design choice
- Worked on microservice backend using TypeScript and OpenAI API to deliver contextual insights for AI responses
- Performed **data analysis on 1600+ survey data points** using Pandas/Matplotlib to uncover key trends

Software Project Lead   Aug 2025 – Present
UofT Blueprint   *Toronto, Canada*
- **Led 8 software developers**, organized development tickets to create a volunteer management system for TRCC
- Deployed Next.js app in TypeScript with Docker and CI/CD pipeline, **reducing deployment failures by 50%**
- Enforced 80% test coverage (Vitest), added Husky pre-commit hooks, and automated dependency maintenance
- **Improved delivery time for stakeholders by 30%** using Git workflows and SCRUM framework

Tech Support Assistant   Aug 2025 – Present
UTM Career Center   *Toronto, Canada*
- Ensured accessibility (AODA compliant) interfaces and **inclusive UI/UX designs for 16,000+ students**
- Leveraged AI tools to optimize code and development time, delivering projects **1 month ahead of schedule**
- Implemented JavaScript-based tools for data-entry workflows, **saving $1,000/month** in manual labor

Standard Operation Procedure Intern   May 2025 – Aug 2025
TRG International   *Ho Chi Minh, Vietnam*
- Built notification bot with automated workflows, **cutting communication time by 40%** for 150+ employees
- Built Flask application parsing Word document to highlight key changes, **saving 20+ minutes per review**
- Automated geocoding of 100+ addresses using Python, generating interactive maps for HR location analytics

PROJECTS

Vibe-Learn ⏻   **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 streaming and MongoDB database
- Optimized MongoDB connection and Kafka producer pooling, reducing request latency from 120ms to 2ms
- Configured circuit breakers and DLQ for fault tolerance, ensuring reliable processing with automatic recovery
- Built real-time Grafana dashboards to monitor service health, connection pool exhaustion, and partition lag
- Conducted load testing with JMeter simulating 500 concurrent users generating 10,000 events/minute

Image Gallery ⏻   **Python / FastAPI / JavaScript / AWS**
- Built a serverless image gallery using AWS EC2, S3, and DynamoDB for metadata and image storage
- Implemented global caching with CloudFront, reducing average load times from 220ms to 35ms
- Compressed images by 60% using Canvas API and automated file cleanup with AWS Lambda

OperAid ⏻   **Python / FastAPI / JavaScript / React / PostgreSQL / Tailwind CSS**
- Worked in a team of 4 on a voice-controlled app to retrieve patient data and MRI scans in under 5 seconds
- Planned, prototyped, and deployed a fullstack voice assistant in 6 hours using React.js, FastAPI, ElevenLabs
- Connected speech-to-text pipeline with PostgreSQL database to allow voice-driven access to 500+ records

TECHNICAL SKILLS

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