

Huu An Duc (Jack) Le

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EDUCATION

University of Toronto	2028
<i>Computer Science - Bachelor of Science - 3.76 GPA</i>	<i>Toronto, Canada</i>
Courses: Software Design (Object-Oriented Programming), Systems Programming (Unix/Linux), Computer Organization (Assembly), Data Structures & Analysis, Database Management Systems, Web Programming	
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
<i>University of Toronto</i>	<i>Toronto, Canada</i>
• 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+ user data points using Pandas/Matplotlib to find trends and optimize tool efficiency	
• Worked on microservice using TypeScript and OpenAI API, adding contextual insights to AI responses	
Software Project Lead	Aug 2025 – Present
<i>UofT Blueprint + Toronto Rape Crisis Center</i>	<i>Toronto, Canada</i>
• Led 8 software developers , organized development tickets to create a management system for TRCC	
• Deployed Next.js (TypeScript) app with Docker and CI/CD pipelines, cut deployment failures by 50%	
• Enforced 80% test coverage (Vitest), added Husky commit hooks, and automated dependency updates	
• Improved delivery time by 30% for stakeholders using Git, Github workflows and SCRUM framework	
Tech Support Assistant	Aug 2025 – Present
<i>UTM Career Center</i>	<i>Toronto, Canada</i>
• Created AODA-compliant documents and designed inclusive UI/UX interfaces for 16,000+ students	
• Implemented JavaScript-based scripts for data-entry workflows, saving \$1,000/month in operational cost	
• Leveraged AI tools to optimize code and development time, delivering projects 1 month ahead of schedule	
Standard Operation Procedure Intern	May 2025 – Aug 2025
<i>TRG International</i>	<i>Ho Chi Minh, Vietnam</i>
• 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 with Python and mapped staff locations to analyze 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, <u>processing 1,000+ events/session with sub-100ms latency across 4 Spring Boot microservices</u> using Kafka message streaming and MongoDB database	
• Optimized MongoDB connection and Kafka producer pooling, <u>reducing request latency from 120ms to 2ms</u>	
• Configured circuit breakers and DLQ for fault tolerance, ensuring reliable processing with automatic recovery	
• Made real-time Grafana dashboards to monitor service health, connection pool exhaustion, and partition lag	
• Conducted load testing with JMeter <u>simulating 100 concurrent users generating 1,000 events/minute</u>	
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 <u>220ms to 35ms</u>	
• <u>Compressed images by 60%</u> using Canvas API and automated file cleanup with AWS Lambda	
Youtube as a Service  Python / Django / Google Cloud Platform / Tailwind CSS	
• Encoded files as video frames uploaded to YouTube, achieving <u>unlimited cloud storage</u> with lossless data recovery	
• Produced compression-tolerant algorithm, <u>reaching 99.9% accuracy in bit-level file recovery across 30+ files</u>	
• Designed backend safeguards for large file handling, error recovery, and long-running encoding tasks	

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