

# Duc Anh Nguyen

 Email  Phone  
 LinkedIn  GitHub

## Education

**Concordia University** (Bachelors of Computer Science)

Expected Graduation: Dec 2026

- Courses: Data Structure & Algorithms, Databases, Operating Systems, Advanced C++ Programming, Artificial Intelligence

## Work Experience

**Shopify**, Software Engineering Intern

May 2025 - Present

- Collaborating with a team of 4 to enable PayPal & Stripe Credit Cards in Shopify's Unified Payments flow using Ruby, Ruby on Rails, MySQL, GraphQL, processing 65% of Shopify's Global Merchant Volume.

**Intact Labs**, AI Software Developer Intern

January 2025 - April 2025

- Refactored the insurance claims backend from regex-based to Retrieval Augmented Generation (RAG)-based using Python, Flask and AWS Bedrock, reducing manual claims reviewing efforts by 50%.
- Developed an internal tool that centralizes LLM evaluation & observability using Python, LangChain, Arize Phoenix, OpenAI & Anthropic APIs, streamlining RAG fine-tuning process for 2000+ Intact developers.
- Implemented customized observability for RAG/LLM applications by developing an AWS Lambda function with Python that captures inferences, RAG retrieval and workflow configurations to MLflow on AWS SageMaker

**Royal Bank of Canada**, Software Developer Intern

May 2024 - January 2025

- Developed a governance system for Helios (RBC's CI/CD platform) using Java, Spring Boot, MongoDB, Kafka, enforcing deployments to meet security and code-quality standards across RBC.
- Led the end-to-end integration of Snyk (code scanning tool) into Helios as a mandatory code quality check, overseeing the project life-cycle, including requirements gathering, system design and implementation.
- Developed RESTful APIs with Python and Flask that trigger code quality scans for Helios deployments and automatically re-scans when prior results have expired, storing all scan outcomes in MongoDB.
- Authored a reusable GitHub Actions YAML template with TypeScript, calling the Snyk service and auto-syncs vulnerability findings to users' GitHub Issues, powering 50,000+ daily CI/CD pipeline runs.

**Armonia**, Full-stack Engineer Intern

February 2024 - May 2024

- Won **4th place** in the Pierre-Péladeau entrepreneurial competition, against 50+ entrepreneurial teams, winning **\$25,000**
- Led the refactor of core products to Next.js, TypeScript, Express.js, eliminating the company's reliance on external development teams.
- Reduced API latency by refactoring large back-end APIs into smaller, specialized endpoints and implementing response caching for high-traffic requests using Redis.
- Optimized the CI/CD pipeline, reducing internal development downtime by containerizing application and automating deployment process using GitHub Actions.

## Projects

**AI Transcription Correction** — Intact DataLab Hackathon 2nd place

Sep 2024 - Present

- Developed an AI transcription correction service, improving Word-error-rate (WER) by 20% over Intact's baseline, chosen by a Director for potential production implementation
- Implemented the transcript correction AI service by flagging high-perplexity phrases, chunking long sentences into small, comprehensible chunks then corrected using OpenAI API with a few-shot prompt.
- Implemented RESTful APIs to communicate with the AI system using Flask and Python and front-end using React.js, Next.js, TypeScript, TailwindCSS, HTML.

## Programming Languages, Technologies, and Miscellaneous

**Programming Languages:** Java, TypeScript, Python, JavaScript, SQL, C++, C, PHP, HTML, CSS

**Technologies:** Spring Boot, MongoDB, Flask, React, Node.js, Apache Kafka, Express.js, PostgreSQL, Docker, MySQL, Jenkins, pytest

**Miscellaneous:** Linux, MacOS, Openshift Cloud Platform, JUnit, Mockito, Nginx, GitHub Actions