

# Duy Nguyen

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## EDUCATION

### Master of Science in Data Science

Seattle University

Sep 2025 – Expected Jun 2027

Seattle, WA

- **Coursework:** Deep Learning, Statistical Inference & Experimental Design, Programming for Data Science — **GPA: 4.0**

### Professional Certificate in ML/AI

UC Berkeley College of Engineering

Jul 2024

Online

- Built deep learning models (LSTM, MLP) and ensemble methods achieving 80% accuracy; projected \$30.4M annual savings; methodology selected as program exemplar

### BA Economics, Data Analysis

Simon Fraser University

Dec 2022

Burnaby, BC

## TECHNICAL SKILLS

**ML/DL:** PyTorch, TensorFlow, scikit-learn, FastAI, Transfer Learning, CNNs, Ensemble Methods, Hyperparameter Tuning

**Data Science:** Python, R, pandas, NumPy, Feature Engineering, Cross-Validation, A/B Testing

**Tools:** Git/GitHub, Neo4j, LangChain, LlamaIndex, Jupyter, Matplotlib, Seaborn, Plotly

## EXPERIENCE

### AI Engineer

Mar 2024 – Oct 2024

Simon Fraser University Blueprint

- Developed AI chatbot serving 660K+ interactions with Neo4j graph database and multi-language NLP
- Achieved 90% accuracy through prompt engineering and automated quality validation; Top 4 SFU CS Diversity Award

### AI Research Engineer

Jan 2024 – May 2024

Simon Fraser University Faisal Lab

- Built RAG pipeline using Python and LlamaIndex, accelerating physician report generation by 50%

## PROJECTS

### AI-Powered Portfolio with Conversational Assistant | *Python, Flask, LangChain, Claude API*

Present

- Engineered full-stack app integrating Anthropic LLM with Flask backend, RESTful architecture, and conversation memory
- Built dual-chatbot system with self-healing error correction via tertiary AI fallback for robust UX

### Deep Learning Image Classification | *PyTorch, ResNet34, Transfer Learning*

Dec 2025

- Achieved 94% accuracy classifying 2,527 images using transfer learning; 100% minority class recall
- Designed controlled experiments testing 4 augmentation strategies through systematic A/B testing

### Aircraft Fuel Efficiency Statistical Analysis | *Python, pandas, NumPy*

Dec 2025

- Analyzed 1.88M flight measurements; built regression models achieving 95.9% accuracy via ANOVA

### Medical Image Classification | *PyTorch, ResNet50*

Nov 2023

- Fine-tuned CNN for medical imaging; ranked 12th on Kaggle leaderboard

## LEADERSHIP & ACTIVITIES

### Co-Founder & Event Coordinator

Sep 2025 – Present

Seattle University International Student Association

- Coordinate events fostering community among 200+ international students; manage cross-team collaborations