Minh (Tommy) Nguyen

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Experienced in AI/ML research, software development, and building full-stack applications. Seeking a full-time Software Engineering internship for Summer 2025 with a focus on the following area(s): Backend Development, Full-stack Development, Data Engineering, AI/ML.

EDUCATION

Villanova University   Expected Dec 2025

Bachelor of Science in Computer Science, Business minor, Honors Degree   ***GPA**: 3.96/4.00*

- **Awards**: Tapia 2024 Conference VU Scholar, Veritas Scholar ($64,000), Connelly-Delouvrier Scholarship ($30,000), AI-JAM US Silicon Valley (Gold medal), Presidential Scholar Alternate (top 2 CS student)
- **Coursework** (*current): *Large Language Model, *Computer Vision, *Database Systems, Operating Systems, Software Engineering, Computer Structure, Data Science, Programming Languages, Analysis of Algorithms, Linear Algebra, Discrete Structures, Data Structures and Algorithms
- **Involvement** (Villanova University): Badminton Club President, Vietnamese Student Association Vice President, Special Olympics Committee Member , Competitive Programming Team, Honors Student Advisory Board

EXPERIENCE

Software Engineer Intern (Full-time)   May 2024 – Aug 2024

Olli Technology   *HCM City, Vietnam*

- Co-developed the AI voicebot backend with 2 developers using LangGraph and GPT API; developed its prototype using Flask, React, and gRPC and helped secure a partnership with the Malaysian Minister of Education.
- Developed an AI-powered image suggestion feature for a marketing assistant app, leveraging Unsplash API (free image library), DALL-E API, GPT API, and gRPC, resulting in a 25% increase in user engagement.

AI Research Assistant (Part-time)   May 2023 – Present

Villanova University   *Villanova, PA*

- Fine-tuned Large Language Models (ByT5, NLLB, DeltaLM) for Igbo to English translation using high-quality, benchmark datasets of 700,000 aligned sentence pairs, achieving a 43% BLEU-score improvement.
- Set to publish datasets of 100,000 aligned sentences in two underrepresented Nigerian languages, created through web scraping and native speaker collaboration, at ICWSM 2025 and COLING 2025 conference.

Undergraduate Data Research Assistant (Part-time)   Jan 2023 – April 2023

Villanova University   *Villanova, PA*

- Refined the text-generation of the AMR system, a Natural Language Processing tool, to sound more human-like
- Automated testing over large datasets and analyzed 80,000 sentences using Python, proposed mathematical expression learning to improve the system

PROJECTS

RAG Chatbot | *Python, LangChain, ChromaDB, Flask, React, Docker, AWS* | *link*   May 2024 – Present
- Developed a chatbot utilizing ChromaDB to store PDF files as embeddings, leveraged k-similarity search to find relevant data, incorporated GPT API to answer user questions.
- Designed multiple chat sessions simulating GPT-4 interactions, providing a responsive user experience.

VU Stock Exchange Platform | *Python, Flask, React, MySQL* | *link*   Jan 2024 – May 2024
- Integrated real-time stock data retrieval and processing from external APIs; developed interactive price trend graphs using Highcharts and JavaScript, and an admin interface for portfolio management and custom stock creation
- Co-designed a multi-table MySQL architecture database to support user info, stock prices, and credit/debit card transactions; implemented SHA-256 for enhanced security, and optimized for handling concurrent user access.

TECHNICAL SKILLS

Languages:(Proficient) Python; (Intermediate) JavaScript, TypeScript, MySQL, R, HTML/CSS; (Beginner) Java, C++
Frameworks: React.js, Vue.js, Flask, gRPC, REST API
Developer Tools: Git, Github, Docker, AWS, VS Code, Google Colab, RStudio, Jupyter Notebook, Eclipse
Libraries: PyTorch, Scikit-learn, LangGraph, LangChain, Pandas, Numpy, BeautifulSoup, Transformer, Concurrent