

Minh (Tommy) Nguyen

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EDUCATION

Villanova University, B.S. in Computer Science and Statistics

Aug 2022 – May 2026

- **GPA:** 3.96 | Veritas Scholar and Honors Program Student.
- Presidential Scholar Alternate (top 30 out of 2000+ applicants, top 2 CS student) | Honors Student Advisory Board.
- **Coursework:** Computer System I, Data Science, Organization of Programming Languages, Analysis of Algorithm, Platform Based Computing, Linear Algebra for Computing, Discrete Structure, Data Structure I & II, Statistic Methods.

SKILLS

- **Technical skills:** Python (Proficient); R, React, JavaScript, Java, CSS, HTML (Intermediate); C (Beginner)
- **Developer Tools:** VS Code, GitHub, RStudio, Eclipse, Jupyter Notebook.

TECHNICAL EXPERIENCE

Research Assistant, Villanova Center for Research and Fellowship

May 2023 – Present

- Enhanced Large Language Models (LLMs) performance in Igbo and Nigerian Pidgin, two low-resourced African languages, through training them on self-curated datasets, targeting translation and text classification tasks improvement.
- Produced machine-readable datasets of 250,000+ parallel sentences by preprocessing over 2,000,000 sentences and annotating them using GPT API; conducted web-scraping of reputable sources using “Beautiful Soup” and concurrent programming.

Undergraduate Research Assistant, Villanova Center for Research and Fellowship

Jan 2023 – Apr 2023

- Refined the text-generation capabilities of the AMR system to sound more human-like; utilized Python to identify differences in over 58,000 sentences and automated testing over large datasets.
- Co-authored a 12-page research report proposing sarcasm and mathematical expression learning to augment the AMR system's capabilities.

Researcher, Designer, Competitor, AI Convergence Creative Olympic

May 2021 – Aug 2021

- Led a team of 4 to develop and operate a Wifi-controlled remote Trash Collector Device using the Blynk mobile app and wifi receiver unit; the device costs ~\$15, can carry 2.2 kilograms of plastic floating trash, and lasts ~3 hours.
- Earned Gold in the 2021 AI-JAM Online Competition in Silicon Valley, USA, outperforming 150+ innovations and ~500 participating students globally.

PROJECTS

Cocktail Chatbot & Recommendation | [Link](#)

Jan 2024 - Mar 2024

- Developed a rule-based chatbot using Python and Flask App to answer inquiries on 100 classic cocktails.
- Conducted web scraping and preprocessing of cocktail data; employed cosine similarity metric to offer personalized cocktail recommendations to users.

Exploring Relationship: World Education and Unemployment | [Link](#)

Mar 2023 – May 2023

- Uncovered a significant negative correlation between global unemployment and education rates through data visualization.
- Utilized CIA World Fact Book and implemented R to preprocess, wrangle, and visualize the data.

Film Recommendation System | [Link](#)

Apr 2023 – May 2023

- Built a film recommendation algorithm using k-mean clustering – a machine learning algorithm – and Python.
- Leveraged the MovieLens dataset, which contains 100,000 ratings (1-5) from 943 users and 1682 movies.

LEADERSHIP & ACTIVITIES

Vice President, Vietnamese Student Association at Villanova University

Aug 2023 - Present

- Directed 30 members and raised ~\$500 by selling Vietnamese sweet noodle soup to support the Philly Justice Project and promote Vietnamese culture.

Committee Member, Local Program Host, Special Olympics

Sep 2022 – Oct 23

- Administered ~2000 volunteers in the Special Olympics Fall Festival by delegating them to 8 competition venues and registering them to the Special Olympics's database system.