

Minh (Tommy) Nguyen

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EDUCATION

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

Expected 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:** (*current): Operating Systems*, Software Engineering*, Computer Structure, Data Science, Programming Languages, Analysis of Algorithm, Linear Algebra, Discrete Structures, Data Structures, Statistic Methods.

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 US Silicon Valley, outperforming 150+ innovations and ~500 participating students globally.

PROJECTS

Cocktail Chatbot & Recommendation | Python, Flask, Numpy, Pandas, Sklearn, BeautifulSoup | [Link](#)

Jan 2024 - Apr 2024

- Developed a rule-based chatbot to answer questions on 100 classic cocktails such as its history, ingredients, weight.
- 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 | R, dplyr, tidyr, ggplot2, plotly | [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 | Python, Sklearn, Pandas, Numpy, Matplotlib | [Link](#)

Feb 2023 – May 2023

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

SKILLS

- **Languages:** Python (Proficient); R, JavaScript, Java, HTML/CSS (Intermediate); C/C++ (Beginner)
- **Frameworks & Tools:** React.js, Flask, Git, GitHub, VS Code, Google Colab, RStudio, Jupyter Notebook.
- **Libraries:** BeautifulSoup, Concurrent, Numpy, Pandas, PyTorch, TensorFlow, Sklearn, dplyr, ggplot2, matplotlib.

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.