MINH PHUC NGUYEN

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EDUCATION

VILLANOVA UNIVERSITY   **Villanova, PA**
Bachelor of Science in Computer Science and Statistics, Honors Student, GPA: 4.0   **May 2026**

- Veritas Scholarship, Presidential Scholar Alternate, Honors Student Advisory Board
- AP Computer Science A: 5; AP Calculus BC: 5
- AI-JAM Online Competition, Silicon Valley in USA 2021: Gold Award

TECHNICAL EXPERIENCE

SUMMER RESEARCH   **Villanova, PA**
Research Assistant   **May 2023 - Present**

- Create a machine-readable dataset for two low-resource African languages: Igbo and Nigerian Pidgin.
- Create a web scraper that collects 2,000,000+ text data from credible sources like BBC Igbo and Nigeria's national radio broadcaster; store them in a structured format.
- Preprocess, clean, and analyze the dataset; yielding 116,884 Igbo sentences and 121,266 Nigerian Pidgin sentences.
- Implement chatGPT API, using text-davinci-03 engine to translate ~ 70,000 sentences to English.
- The dataset can be used to build language models and NLP tools for Igbo and Nigerian Pidgin languages.

MATCH RESEARCH PROGRAM   **Villanova, PA**
Research Assistant   **Jan 2023 - April 2023**

- Gained exposure to various parts of the Natural Language Processing system pipeline.
- Utilized Python and Jupyter Notebook; analyze 58000+ machine-generated versus human-generated sentences from sources like Discussion Forum, Broadcast conversation, News, and Wikipedia
- Suggested improvements to the Abstract Meaning Representation system to make text generation sound more human-like such as understanding the use of capitalization for sarcasm and learning more mathematical expressions.
- Presenting a 12-page Research Report through Overleaf - a popular website for official research formatting

INTERNATIONAL AI CONVERGENCE CREATIVE OLYMPIC 2021   **Hanoi, Vietnam**
Researcher, Designer, Competitor   **June 2021 - Aug 2021**

- Awarded Gold in the 2021 AI-JAM Online Competition, Silicon Valley in USA with more than 150 innovations and approximately 500 students participated in worldwide
- Invented, installed and ran a Wifi-controlled remote Trash Collector Device with 4 members. When pressing buttons on the Blynk mobile app, the wifi receiver unit (installed on the device) then receives commands and transfers them to the power control circuit (installed on the device). The circuit then directs the motor engine according to those commands.

SKILLS & COURSEWORK

- **Programming languages:** Python 3, Javascript, Java, HTML, CSS
- **Tools & Libraries:** VS code, Jupyter Notebook, Eclipse | React.js, NumPy, Pandas, NLTK, BeautifulSoup
- **Coursework:** Analysis of Algorithm, Platform Based Computing, Linear Algebra for Computing, Discrete Structure, Data Structure, Statistic Methods
- **Certificates:** Code Academy: Python 3; Build a website with HTML, CSS, and Github Pages

PROJECTS

- **Film Recommendation System** | Methods: K-mean clustering, elbow method | Python libraries: panda and numpy | Software machine learning library: sklearn.
- **Villanova University Calories Tracker** | Frontend: HTML, CSS | JavaScript library: ReactJs | Database storage: Firebase.
- **Web Portfolio** | Frontend: HTML, CSS, SCSS | Backend: JavaScript.

LEADERSHIP & ACTIVITIES

Competitor, **CS PROGRAMMING TEAM**   **Villanova, PA, Aug 2022 - Present**
President, **AMSTRONOMY**   **Hanoi, Vietnam, Dec 2019 - June 2022**

Built and managed an astronomy website; authored 200+ articles on various astronomy topics.
Hosted an online fundamental astronomy course through Zoom, which attracted 150 students aged 8 to 13 from nationwide - the course consists of 6 lessons and lasts for 3 weeks; led a team of 80 members.
Organized two online astronomy classes about chartering a STEM's club through Zoom, holding 150+ teachers from nationwide.