Tu-Linh (James) Nguyen

linhnguyenhatu@vt.edu❖ https://jamesnguyen.onrender.com/❖ https://www.linkedin.com/in/linh-nguyen-6b7909327/

EDUCATION

B.S. in Computer Science, Virginia Tech (Aug 2024 – expected: May 2028)

SKILLS

Programming languages/Tools: C++; Java; MATLAB; Python; HTML / PyTorch; TensorFlow; Git; Flask
Technical skills: Data Analysis and Visualization; Machine Learning; Back- and Front-end Development
Soft skills: Leadership; Project Management; Problem Solving

WORK EXPERIENCE

Technical Intern (Nov 2022 – June 2024)
Kidscode STEM, Hanoi

- Served as a teaching assistant for robotics and programming classes
- Contributed to organization of province-level robotics competitions
- Led robotics programming sessions within outreach activities providing STEM education experiences to students and teachers in under-served regions of Northern Vietnam

PERSONAL PROJECTS

Medical Chatbot (Oct 2024 – Nov 2024)

- Developed a full-stack demo chatbot application tailored to the medical domain
- Conduct data analysis on a dataset of 200,000 samples of users' prompts and doctors' responses using Word Cloud and Matplotlib
- Utilized PyTorch framework with Decoder-only Transformer model and the standard word embedding techniques

Hate Speech Detection (Nov 2024)

- Conducted exploratory data analyses on a small dataset of 25,000 Tweeter posts and comments
- Utilized PyTorch framework with simple Word2Vec technique and Long-Short Term Memory model to train an AI model that can detect hate and offensive posts and comments; the model achieved an out-of-sample accuracy of 87%.

AI Math Tutor (Oct 2024 – Nov 2024)

- Developed a full-stack demo application for users to register, login, choose math topics for study, and take practice questions
- Used PyTorch to train a logistic regression model with data such as grades, exam time, and study time to predict students' areas needing improvement
- Utilized OpenAI API and Google API for searching supplemental study materials

ACTIVITIES

Robotics Team Leader, VEX Robotics Competition, Hanoi (Aug 2023 – Feb 2024)

- Won Innovation Award
- Managed and led a team of 6 members for a 6-month period to prepare for a robotics competition
- Used Python to program autonomous parts of the robot
- Applied data analysis to create a mathematical function controlling angle of rotation, as an alternative solution for a Giro sensor

Organizing Committee Member, Vietnam STEM Robotics Competition, Hanoi (Apr 2023 – Oct 2023)

- Designed the programming challenges and rules for the competition
- Designed programming tasks for maze-solving problems with the use of maze-solving algorithms
- Hosted Webinars for the competition
- Evaluated applicants for the first round and participants' works in the final round

Hackathon Team Leader, Vietnam SteamHacks Competition, Hanoi (July 2023)

- Won Best Idea Presentation Award
- Led a team of 4 members to develop an application utilizing computer vision techniques to identify counterfeit products
- Used HTML, CSS, Jinja2, and Flask to design the front-end of the website
- Used Python and a pre-trained classification model from the Teachable Machine website for the back-end of the website
- Used ChatGPT API to create a chatbot on the website

CERTIFICATES

Supervised Machine Learning: Regression and Classification, 2024, DeepLearning.AI (Coursera)
Introduction to Java and Object-Oriented Programming, 2024, University of Pennsylvania (Coursera)