TAM VU

New Haven, CT | 2038590663 | tam.vu@yale.edu | LinkedIn | GitHub | Personal Website | U.S Citizen

EDUCATION

Yale University, New Haven, CT — Expected Graduation 2025

- BS in Computer Science, BS in Statistics and Data Science (double major)
- *Relevant Coursework:* Algorithms, Systems Programming, Intermediate Machine Learning, Probability and Statistics, Statistical Theory, Data Structures, Discrete Math, Multivariable Calculus, Linear Algebra, HCI
- Teaching Assistant for S&DS 265 - Introductory Machine Learning

TECHNICAL SKILLS

- *Computer Languages:* Python, Java, Javascript, C++, C, R, MATLAB, SQL, React, CSS, HTML
- *Tools:* PyTorch, NumPy, Pandas, Git, Github, SciPy, MongoDB, Node, Express, Typescript, LaTex, Bash, Linux
- *Skills:* Deep Learning, Computer Vision, Data Analysis, Fullstack Development, Statistical Analysis

WORK EXPERIENCE

Weill Cornell Medicine, *Researcher*, New York City, New York — May 2024 – Present

- Improved rim lesion detection accuracy of multiple sclerosis by 8% by developing and training a residual neural network using synthesized rim lesion data with PyTorch, outperforming the state-of-the-art model QSMRim-Net
- Resolved the data imbalance issue by increasing the rim lesion count from 177 to 10,000+ by creating an image augmentation algorithm that synthesizes rim lesion data from non-lesion data using SciPy and NumPy
- Collaborating with radiology professors and PhD students to draft a paper for publication as first author

Yale Center for Biodiversity and Global Change, *Data Science Intern*, New Haven, CT — May 2023 – August 2023

- Developed report generation for species distribution modelling using R and SQL to give insight on model performance, resulting in 3 additional filters to be added to the SDM interface (mol.org) using RESTful APIs
- Implemented 'seasonal' feature that models species distribution across the different seasons, allowing ecologists to track migration patterns

VinBigData, *Machine Learning Intern*, Hanoi, Vietnam — June 2022 – August 2022

- Improved segmentation to diagnosis time of liver lesions by ~200% by building and training deep learning models on CT scans, replacing manual segmentation methods with automated segmentation.
- Implemented the U-Net neural network model in PyTorch from scratch and achieved over 95% dice score accuracy. To be deployed on the VinDr medical application tool at 7 hospitals across the country

PROJECTS & LEADERSHIP EXPERIENCE

FastPoker, *Independent Project*

- Developed a multiplayer heads-up poker web application using Javascript that includes messaging, game statistics, and an ELO ranking system. Attracted 30+ monthly active players.
- Built using React.js on the frontend, and Express.js and Node.js on the backend, with MongoDB as the database

YHack, *Fullstack Lead*, New Haven, CT — September 2021 - Present

- Developed the official YHack website and participant portal (yhack.org) on a React and Firebase codebase, attracting 1000+ hackers and multiple industry sponsors for a $10,000+ prize pool
- Spearheaded the development and integration of frontend components to respond fluidly with the cloud
- Lead a small team in designing brochures, posters and merchandise logos, contributing to a 12% increase in student participation. Designed the official logos of the 2023 and 2022 hackathons on Figma

Yale Computer Society, *Software Developer*, New Haven, CT — January 2023 – May 2024

- Collaborating with a small team on Yale's premier scheduler service for students and faculty using React, Tailwind CSS, Typescript (frontend) and Firebase with the Google Calendar API and Yale Buildings API (backend)
- Maintained team efficiency and met deadlines by leading weekly debugging sessions