

Hannah Nguyen

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EDUCATION

University of Michigan – Ann Arbor

Sep 2021 – Present

Bachelor of Computer Science

Coursework: Data Structures and Algorithm, Foundation of Computer Science, Software Engineering, Web Systems, Introduction to Artificial Intelligence.

INDUSTRY EXPERIENCES

Tarmac.IO Company

May 2024 – Aug 2024

Software Developer Intern

Remote, USA

- Cooperated with 5 coworkers to create a "Transfer" button for the client's website using React, JavaScript, SCSS, and Ruby on Rails. This feature processes CSV and PDF files of generators, supporting company transfers, and saving 10 hours per month of manual data transferring.
- Developed an intern project using React, JavaScript, and SCSS to create a weather app utilizing a custom API built with Sinatra for weather data and the ChatGPT API for user interactions. This app became a sustainable example for future interns.
- Resolved 10 critical client-issued tickets by fixing invoicing data issues with React, customized tables, and Material-UI. Implemented robust validation checks and optimized data handling, enhancing system performance and user experience significantly.

MiTek Company

Dec 2023 – May 2024

Student Researcher

Ann Arbor, USA

- Collaborated with 9 students to engineer an advanced algorithm for precise detection of plates on trusses, increasing detection accuracy by 25% and improving MiTek machines' efficiency by 30%.
- Played a key role in the Plate Detection team, utilizing Roboflow for data management and Detectron2 to segment plates from images, which acquired 90% of accuracy

Sol Systems Company

Jun 2023 – Aug 2023

Technical Research Intern

Washington, DC

- Developed comprehensive pedagogical resources for company's data architecture and tools, leveraging SQL, Python, and Tableau expertise within Visio maps, facilitating clear guidance for team data engineers.
- Created Tableau Dashboards to give illustration to market events and pricings, which became a sustainable resource for future reports, data analysis, and tutorial for other market researchers
- Orchestrated data preparation, manipulation, and management for approximately 25000 transactions of REC trading

STEM PROJECTS

NASA Rock Detection

Aug 2023 – May 2024

Claws

- Integrated Haar Cascade Classifiers for marker classification achieving 85-95% accuracy in AR Tennis Ball recognition
- Utilized YOLOv5/YOLOv8 to develop a deep learning model specifically tailored for Geosample segmentation, enhancing precision and scalability in geological data analysis

Movie Recommendation App

Aug 2022 – May 2023

Michigan Data Science Team

Ann Arbor, MI

- Evaluated the accuracy and performance of the SVD algorithm on the dataset, achieving a high accuracy rate of over 70%
- Implemented Singular Value Decomposition (SVD) using Python and the TensorFlow library to factorize 9000 pre-processed movie ratings matrix to reduce dimension, enabling personalized movie recommendations for users

ASL Computer Vision App

October 2022 – Apr 2023

MedLaunch Umich

Ann Arbor, MI

- Co-developed model based on condensed layer with current accuracy of 38%
- Coordinated literature research and synthesized prototype development plans for ASL computer vision app development approaches, one based on static gesture recognition and one on dynamic glove capture
- Collected 1000 hand signal data and added to open-source tools for model training

SKILLS

- Languages: C++, Python, Java
- Web/App Development: HTML&SCSS, JavaScript, React, React Native
- Machine Learning: TensorFlow, Keras, Detectron2
- Data Analytics: Pandas, Numpy, Seaborn, Matplotlib