Quan Quy

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EDUCATION

Rochester Institute of Technology   Rochester, NY

Bachelor of Science in **Computer Science**, minor in **Astronomy |** GPA: 3.82   Dec 2024

EXPERIENCE

- **Oak Ridge National Laboratory (ORNL) |** *Machine Learning Engineer Intern*   *January 2025 - Present*
  - Preparing data, fine-tuning large language models (LLMs) in a multi-GPU HPC environment, and implementing RAG and RAG database to enhance performance for metadata generation tasks.
  - Developing an open-source product adhering to Model Context Protocol (MCP) and Agent-to-Agent (A2A) protocol, enabling seamless model interaction and data interoperability.

Skills: Python · Machine Learning · PyTorch · TensorFlow · Google ADK · MLflow · LLM · MCP · A2A · PGVector

- **NASA Goddard Space Flight Center |** *Data Science Intern*   *August 2024 - December 2024*
  - Enhanced VIRGO (Visual Interface for Research using GEOS Output) by implementing advanced data analysis tools and improving user interfaces for intuitive climate and weather analysis.
  - Developed a machine learning pipeline integrating deep learning models to forecast climate variables (e.g., temperature, wind components,..) up to 10 days in advance using GEOS-5 and WACCMX datasets.
  - Built cross-platform tools and user-friendly web apps for large ML model accessibility.

Skills: Python · Data Analysis · Climate Modeling · Machine Learning · Data Visualization

- **National High Magnetic Field Laboratory (MagLab) |** *Data Science Intern*   *May 2024 - July 2024*
  - Developed machine learning forecasting models combining deep learning techniques and traditional statistical methods to optimize maintenance scheduling and enhance system reliability for magnet research.
  - Optimized model performance and deployed code with Slack integration for real-time notifications.

Skills: Time Series Forecasting · LSTM · CNN · Machine Learning · Python · TensorFlow · Darts · Slack API

- **CI Compass |** *Student Fellow*   *Jan 2024 - May 2024*
  - Selected for a competitive national fellowship to gain expertise in cyberinfrastructure at NSF Major Facilities.
  - Researched and addressed cyberinfrastructure challenges faced by NSF facilities.
  - Collaborated with leading research institutions and participated in workshops on CI, High-Performance Computing, Cloud Computing, FAIR Data, and Research Ethics.

Skills: Cyberinfrastructure · HPC · Cloud Computing · FAIR data · Python · Linux

- **Rochester Institute of Technology Center for Detectors |** *Undergraduate Researcher*   *Nov 2023 - May 2024*
  - Utilize Python (NumPy, SciPy, Matplotlib) and MATLAB to create a software pipeline for analyzing and cross-correlating images from the Cosmic Infrared Background Experiment (CIBER and CIBER-2).

Skills: Python · MATLAB · Matplotlib · Numpy · Scipy

- **OpenKnect, Inc. |** *Software Engineer Intern*   *May 2023 - August 2023*
  - Collaborated with a team of developers and UX/UI designers to implement a web application using MVC, Flutter, Dart, Git, Figma, and Firebase technologies.
  - Utilized media queries and best practices to achieve fully responsive websites for desktop, tablet, and mobile users, ensuring optimal user experiences with a 10% increase in mobile user engagement and an average page load time decrease of 20% through front-end optimization techniques.

Skills: Dart · Flutter · Firebase · Git

PROJECTS

- **eCommerce Website |** TypeScript, Angular, HTML, CSS, Bootstrap, Java Spring Boot, SonarQube, Git, Github
  - Responsible for designing efficient user interactions using TypeScript, Angular, HTML, CSS, Bootstrap
  - Created and maintained architecture for Restful API using Spring Boot to handle all customer and admin actions
- **FlashLearn App |** Python, Flask, React, OpenCV
  - Developed a web-based application that utilizes ChatGPT's API to assist users in summarizing content, creating flashcards, and generating quizzes from multimedia sources including YouTube links, videos, audio, and images

SKILLS

- Languages: Python, Java, JavaScript, TypeScript, MATLAB, MIPS Assembly, Dart, HTML, CSS, C/C++, C#, SQL
- Technology: React, Angular, Flutter, Bootstrap, Spring framework, Spring Boot, Flask, Three.js, Firebase, Numpy, Pandas, Matplotlib, Scikit-learn, Darts, Tensorflow-Keras, Git, Github, Linux, MLflow, Google ADK, PGVector