

Martin Long Hoang Tran

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Software Engineer Intern

EDUCATION

Cal State University, Fullerton - Bachelor of Science, Computer Science

Expected in May 2027

EXPERIENCE

Software Development Intern

May 2025 - Present

OpenQQuantify

Vienna, Virginia, United States (Remote)

- Developed and deployed an **AI health assistant chatbot** using **LLMs (Hugging Face)**, significantly improving FAQ response accuracy by **50%** and reducing average user query resolution time by **10 seconds**.
- Built a **Python ETL pipeline** processing **50,000+ FDA drug records**, saving **15 hours** of data preparation per week.
- Created and implemented a fully responsive frontend using **HTML**, **CSS**, and **JavaScript**, featuring a real-time chat interface, theme toggling, and accessibility-focused enhancements to maximize user engagement.
- Automated **3D asset acquisition** via public APIs with license filtering (e.g., CC0), converting assets to optimized **glTF/GLB** format using Blender (headless), Assimp, and Python scripting, then integrating them into the web interface with Three.js for interactive, real-time 3D visualization.

AI Engineer

June 2025 - September 2025

Product Manager Accelerator

Boston, Massachusetts, United States (Remote)

- Designed and implemented a **journal entry feature** with **MongoDB schemas**, **database models**, and **FastAPI endpoints**, securely storing **1,000+ user entries** and enabling efficient retrieval and management.
- Extended backend architecture to support **persistent chat history**, significantly enhancing system scalability, reliability, and overall performance to accommodate **200% of projected user growth**.
- Collaborated on branch-based **Git workflows**, maintaining separate development/testing branches and managing schema/database updates for new features.

PROFESSIONAL DEVELOPMENT

Undergraduate Researcher

May 2025 - August 2025

NASA L'SPACE Program

Tempe, Arizona, United States (Remote)

- Researched and developed technologies aligned with **NASA's Technology Taxonomy**, including Radiation Transport & Risk Modeling, Radiation Mitigation, Protection Systems, and Portable Life Support Systems.
- Investigated solutions to critical health, safety, and survivability challenges for long-duration space missions.
- Contributed to **proposal reviews**, providing technical feedback based on NASA evaluation criteria.
- Engineered and refined complex **CAD models** using **Siemens NX** to support system development.

PROJECTS

Hermit | Property Management Web Application

April 2025 - May 2025

- Built a **full-stack platform** with property listings, reviews, authentication, and payments (**Python**, **HTML**, **CSS**, **JS**).
- Integrated **RapidAPI** real estate API to fetch and display real-time property data, enabling dynamic property listings, accurate pricing updates, automated data synchronization, and an interactive user experience across the platform.
- Achieved **95% test coverage** with **40+ unit tests** to ensure platform reliability and prevent regressions.
- GitHub: github.com/martintran23/hermit2

SKILLS

Programming Languages: Python, JavaScript, HTML, CSS

Frameworks & Tools: FastAPI, Flask, React.js, Bootstrap, Postman

Databases: MongoDB, PostgreSQL

Other: API Development, Git, Siemens NX