Logan Thomley

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Education

University of Florida **Expected May 2028**
B.S. Computer Science, Honors Program *GPA 3.91/4.00*
Minor in Statistics

Relevant Coursework

Courses: EEL 5840 **Fundamentals of Machine Learning**, EEL 4930 **Applied ML for AI Systems**, MAS 3114 Computational Linear Algebra, COP 3503C Programming Fundamentals 2, COP 3502C Programming Fundamentals 1, COT 3100 Applications of Discrete Structures, MAC 2313 Analytical Geometry and Calculus 3, EML 2023 Computer-Aided-Design

Experience

Software Engineer | *UF Computing Student Union* **May 2025 – Present**

- Collaborate on an 8-person development team to build internal tools that consolidate and streamline information management across UF's computing student organizations
- Maintain a consistent development rhythm by utilizing **Linear** for efficient task management and weekly standups, ensuring code quality and efficient contribution via **Git** version control
- Enhanced a Discord bot in **Python** to automatically detect event flyers in messages, implementing character recognition functionality with **easyOCR**, **DocTR**, and **Pytesseract** to improve event detail extraction accuracy by over 30%

Applied Research Lead | *GATR Robotics* **October 2024 – Present**

- Spearheaded the creation and technical direction of the **Applied Research Team**
- Developed **AskVRC**, a platform, to enhance new member rule comprehension and streamline the on-boarding process
- Designed core robot mechanisms, such as our chassis for the 2025 World Championship, using Fusion
- Contribute to mechanical assembly and integration of robot components, ensuring alignment between CAD designs and physical builds through iterative testing and refinement

Collegiate Committee Ambassador | *Freshman Leadership Engineering Group* **September 2024 – May 2025**

- Collaborated with a team of 9 other freshman engineers to connect undergraduate engineering students with opportunities and resources such as research lab tours, club fairs, and scholarship workshops
- Presented committee initiatives and event plans to a broader team of 50 student leaders, ensuring alignment with organizational goals and member interests

Founding President and Robotics Engineer | *ACE Robotics - Team 229V* **August 2022 – May 2024**

- 2024 VEX World Championship Division **Champions** and 2023 VEX World Championship Division **Finalists**.
- Ranked **1/13,000** globally in both autonomous and driver skills and **1/20,000** globally in match performance
- Designed, prototyped, and fabricated 10 different robots across multiple season utilizing Onshape, Inventor, and Fusion

Projects

AskVRC | *Python, LangChain, Pinecone (Vector DB), OpenAI*

- Enhanced LLM Factual Accuracy by 55% (F-Score) using **Retrieval-Augmented Generation** (RAG)
- Reduced Hallucination Rate from 20% to around 2% by implementing vector-based context injection
- Segmented documents, generated embeddings, and performed similarity searches using the **Hierarchical Navigable Small World** (HNSW) algorithm to seek contextually-similar vectors in a **Pinecone** database

Stock Market Visualizer | *Python, Pandas, NumPy, yfinance, Matplotlib, winotify*

- Developed a Python application to visualize and track stock market data for major tech companies
- Utilized the **yfinance** library to gather historical stock data, **Matplotlib** and **Seaborn** to generate plots of stock prices over different timeframes, and the **winotify** library to provide desktop notifications
- Implemented data processing and cleaning using **Pandas** and **NumPy** to standardize information

Technical Skills

Skills: Python, C++, MATLAB, HTML/CSS, Git, Docker, HiPerGator, Jupyter, SOLIDWORKS, Autodesk Inventor
Libraries: Pandas, NumPy, Scikit-Learn, LangChain, Matplotlib, easyOCR, Pinecone