Abhinav Kotta

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EDUCATION

University of Central Florida

Orlando, FL

Graduation: May 2026

BS/MS in Computer Science

- **GPA**: 3.75/4.0 | 5x Dean's List | President's List
- Accelerated BS/MS in Computer Science

SKILLS

Programming: Git, Bash, Docker, Python, Java, Containers, C, SQL, FastAPI, Object Oriented Design, HPC, React, Data structures, PyTorch

Coursework: Advanced Computer Vision, Calculus 2 & 3, Matrix and Linear Algebra, Artificial Intelligence

WORK EXPERIENCE

L3Harris Orlando, FL

AI Engineering Intern

May 2024 – Aug 2024

- Conducted comprehensive trade studies on various LLMs and Inference Engines.
- Used Docker to put AI models into existing infrastructure utilizing Inference Engines such as TGI and vLLM.
- Played a key role in the front-end development of a multimodal assistant that uses Tailwind and TypeScript.

Photovoltaics Research Group (Github) (Publication)

Orlando, FL

AI Researcher

Feb 2024 – June 2024

- Created an innovative solution to forecast high-risk zones for power outages in Florida counties preemptively before the onset of hurricanes by leveraging **graph neural networks**, **U-Net** architecture, publicly available outage data, and nighttime satellite imagery.
- Paper accepted into the **PVSC** conference with publication scheduled for August 2024.

L3Harris Melbourne, FL

Software Engineering Intern

May 2023 – Dec 2023

- Automated metric reports saved 20+ hours by leveraging Microsoft SQL Server.
- Contributed C driver code for new OS deployed nationwide by the FAA.

LEADERSHIP & INVOLVEMENT

Drone Racing Instant Flight Tracker (DRIFT) (Proposal)

Orlando, FL

Developer

Sept 2024 - Present

- Developing VR application for immersive drone race experiences with virtual and real-world tracks.
- Implementing data acquisition and processing systems using **Arduino** and C++.
- Enhance user experience with detailed race analytics.

AI @ UCF Orlando, FL

Projects Director

Apr 2023 – Present

- Manage the progress of multiple projects throughout the semester creating a connected space for all teams.
- Allow competition participation on Kaggle plus the creation of a club Mentor Database.
- Hosted multiple industry events at the club with companies such as **Adobe**, and **Google**.

Counteracting Language Alteration Risks in Intelligent Systems (Github) (Report)

Orlando, FL

AI Researcher

Mar 2024 – May 2024

- Developed modular defense for robotic VLM systems against language attacks.
- Implemented MLP model to train on various attack types, bolstering system resilience.
- Achieved near 100% accuracy enhancements, securing robotic VLM systems from language alterations.

Autoencoder and Image Colorization (Github) (Report)

Orlando, FL

Developer

Oct 2023 - Nov 2023

- Tested different autoencoder models to see which produce the best colorization of gray scaled images.
- Created our own image colorization model by using convolutional layers along with a dense layer and tested it on the CIFAR-10 dataset.