# Kyle Williams

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## EDUCATION

### Bachelor of Computer Science
University of Central Florida · Orlando, FL · Fall 2020 - Spring 2024 · 3.90 GPA
· Graduated with Honors from the Burnett Honors College
· Cum Laude

### Masters of Computer Science
University of Central Florida · Orlando, FL · Fall 2023 - Spring 2025
· Specialization in Computer Vision and Machine Learning

## EXPERIENCE

### Signals Analysis Intern
**Zeta Associates**                                    **May 2024 - June 2024, Greenwood Village, CO**
· Created a Python and X-Midas program to perform TDOA geolocation of a signal from 4 drones with UP Squared i12 computers.
· Personally coded and transmitted an encrypted BPSK signal onto an UP board with an Ettus B200 Mini and a GNSS receiver.
· Created parallelized cross-ambiguity functions to find TDOA values faster than real-time transmission using object-oriented programming.

### Regal Theaters
**Floor Staff**                                        **February 2019 - March 2020, Longmont, Colorado**
· Customer service, concessions, and ticket taking for customers at a busy location.

## PROJECTS

### Senior Design - AI Pothole Detection App                          September 2023 - May 2024
AI Model and Data Developer
· Team member on two semester project that live-identifies potholes in the road, notifies the user, and uploads to a database for future use.
· Personally curated the 22239 image dataset and used YOLOv8 to create and implement the model over 200 epochs for a 0.656 mAP50.
· Awarded best senior design project in computer science out of 33 teams.

### UCF Social Confessions Feed                                       October 2022 - December 2022
Project Manager & Backend Developer
· Directed a team of 8 in development of a full stack MERN website/app where users post anonymous messages, comment, and vote.
· Assisted in backend development using Node.js, creating login, register, update user, upvote, downvote, and delete endpoints.

### License Plate AI Detection                                        September 2023 - December 2023
AI Model Developer
· Used an AI model with a large dataset to localize the image to the license plate, then identifies the digits on the plates with EasyOCR.
· Created neural network in Python using NumPy and CV2 over 100 epochs on a dataset of 2131 images with 640x640 images.

## SKILLS

**Programming:** Python / C / C++ / Java / Javascript / HTML / CSS / PHP / Haskell / X-Midas
**Proficiency using:** Roboflow / Heroku / Tensorboard / MySQL / WebGL / Node.js / ReactNative / Observable / SwaggerHub / Postman

## AWARDS / LEADERSHIP

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|---|---|
| **National Merit Scholar** | **NMSC, 2020** |
| **Eagle Scout** | **Boy Scouts of America, 2020** |
| **Best Senior Design Project in CS** | **University of Central Florida, 2024** |
| **President's Honor Roll 4.0 Certificate (4 Semesters)** | **University of Central Florida, 2020-2023** |
| **Model UN Committee Co-Chair** | **KnightMUN, 2023** |