

# Kyle Park

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## EDUCATION

### The Ohio State University

Columbus, OH

*Bachelor of Science in Computer Science Engineering, Minor in Mathematics; GPA: 3.73*

*Aug 2023 – Dec 2026*

- Awards/Involvement: Dean's List, National Buckeye Scholarship, ECE 2060 Grader, ENGR 1181/1182 TA, Personal Trainer

## TECHNICAL SKILLS

**Languages:** Python, Java, JavaScript, C#, Ruby, HTML/CSS, React Native

**Tools & Libraries:** PyTorch, FastAPI, SQLAlchemy, PostgreSQL, Pandas, Alembic, Docker, Linux, Git, MATLAB, Rails, SAM2

**Coursework:** Artificial Intelligence, Machine Learning, Data Structures & Algorithms, Low Level Programming, Database Systems, Operating Systems, Computer Networking, Software Development, Web Applications, Linear Algebra

## EXPERIENCE

### Imageomics Institute

Sep 2025 – Present

*Computer Vision Research Assistant*

*Columbus, OH*

- Applying SAM2 and GroundingDino models with PyTorch to **label and segment 1000+ videos** of multiple sports to train algorithms for identity recognition from actions, aiming to transfer these methods to ecological applications
- **Reduced manual film retrieval time by 10 hours a week** by developing a Python script using the NBA API to instantly deliver player and shot-specific clips, helping streamline film analysis for the research team

### Health Care Service Corporation

Jun 2025 – Aug 2025

*Software Engineer Intern*

*Chicago, IL*

- **Saved 90 hours and \$52K annually** by optimizing ingestion, cleaning, normalization of cohort data with Python and Pandas
- Designed scalable MongoDB schemas and REST APIs using FastAPI to optimize query performance, **reducing reporting delays from 1 week to same-day and enabling cross-region self-serve access to 3K+ records**
- Containerized data pipelines and REST APIs using Docker, creating reproducible environments and deployment workflows

### Teaching Assistant, CSE 1223

Sep 2024 – Present

*The Ohio State University*

*Columbus, OH*

- **Assist 40+ students each semester** in Introduction to Java during lab sessions **2 times a week**, providing guidance with programming fundamentals, basic algorithms, and data structures, through one on one support and troubleshooting
- Hold weekly office hours providing constructive criticism for **over 50 homeworks, labs, and project assignments**
- **Improved student grades by an average of 3% each semester**, reflecting effective teaching methodologies

## LEADERSHIP & INVOLVEMENT

### Object Detection Engineer

Aug 2025 – Present

*Buckeye Vertical*

*Columbus, OH*

- Developed and executed C# scripts in Unity to automate the generation of **20,000 synthetic images** for model training
- Trained image processing architecture, consisting of YOLO, OCR, & OpenCV achieving **95% accuracy on real data**
- Utilized AWS cloud computing resources to efficiently train a YOLOv8 object detection model on generated datasets

### Sponsorship Lead

Sep 2024 – Present

*OHI/O*

*Columbus, OH*

- Lead networking with **100+ companies annually**, raising **over \$115,000** throughout the year for all OHI/O events
- Direct financial planning, allocating funds across programs and club operations for members and **2600+ CSE students**

## PROJECTS

### MoodboardApp | Python, React Native, FastAPI, PostgreSQL, Pydantic

Aug 2025 - Oct 2025

- Developed a mobile app with React Native and TypeScript, enabling **90+ users** to create and share music moodboards
- Designed and deployed a Python FastAPI backend with Pydantic data models and PostgreSQL, implementing JWT-based authentication, rate-limited endpoints, and optimized query patterns for scalable user interactions
- Implemented automated CI/CD pipelines with Vercel and Railway that tested and deployed frontend and backend on every push, **reducing deployment time by 90%** and ensuring zero failed builds post-integration

### TravelPal | Python, Arduino, C++

Mar 2025

- **Won 2nd place** at Make OHI/O with **250+ participants** competing in a 24 hour time frame
- Designed a routing algorithm that **improved travel efficiency by 35%** for users with mobility or sensory impairments
- Trained model using terrain and distance data from **100+ campus locations** to dynamically adjust travel routes
- Built hardware with C++ and Arduino, displaying directions on LCD and LED modules to support deaf and blind users