

# Kyle Park

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## EDUCATION

### The Ohio State University

Columbus, OH

Bachelor of Science in Computer Science Engineering, Minor in Mathematics

Aug 2023 – Dec 2026

- Awards + Activities: Dean's List, National Buckeye Scholarship, Make OHI/O 2025 1st Place Winner, Introduction to Digital Logic 2060 Grader, Fundamentals of Engineering I & II Teaching Assistant (2024 - 2025), Personal Trainer

## TECHNICAL SKILLS

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

**Tools & Libraries:** PyTorch, FastAPI, SQLAlchemy, PostgreSQL, sklearn, Pandas, Alembic, Docker, Linux, Git, 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

Columbus, OH

Computer Vision Research Assistant

- Co-developed BALLER120, a curated dataset of **4,500+** free-throw sequences from **120 NBA players**, resulting in **9000+ appearance and silhouette clips** for controlled identity recognition research
- Built a full segmentation pipeline using GroundingDINO + SAM2, achieving **frame-accurate masks across 100% of clips**
- **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

Chicago, IL

Software Engineer Intern

- **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

### The Ohio State University

Sep 2024 – Present

Columbus, OH

Introduction to Java Teaching Assistant

- **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

## PROJECTS

### Spotted Lanternfly Predictor | Python, Pandas, NumPy, Plotly

Sep 2025 – Nov 2025

- Developed a spatial-temporal prediction model forecasting Spotted Lanternfly spread across **17 Ohio counties**, generating county-level infestation timelines through 2027 using proximity, forest composition, and urban density metrics
- Engineered a composite ecological risk scoring system for **22 host tree species** by weighting abundance rankings against species-specific sensitivity data, identifying Maple as the highest-risk species (**70.0/100 score**)
- Estimated a **\$38.7M annual economic impact** to the Columbus region via geospatial modeling and scaled economic-loss calculations derived from Pennsylvania historical data (2014–2020)

## LEADERSHIP & INVOLVEMENT

### Object Detection Engineer

Sep 2025 – Present

Columbus, OH

Buckeye Vertical

- Developed and executed C# scripts in Unity to automate the generation of **20,900+ 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 – Sep 2025

Columbus, OH

OHIO

- 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**