ADVAIT JAYADEVAN NAIR

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EDUCATION

The Ohio State University, College of Engineering **Columbus, OH**
Bachelor of Science in Computer Science Engineering *August 2022 - May 2025*
GPA: 3.5

- Specialization: Artificial Intelligence
- Entrepreneurship and Innovation Scholars: Selected for demonstrated leadership, creative problem-solving, and commitment to driving innovative ventures.
- Honors: Dean's List (5 of 6 semesters)
- Organizations: Buckeye Vertical • NeuroTech • OSU AI Club • OHI/O

RELEVANT SKILLS

Programming & Software Engineering: JavaScript • TypeScript • C++ • Java • C • Python • Object-Oriented Programming

Web, Mobile & UI Development: React • React Native • Node.js • REST • HTML • CSS • UI • Adobe Creative Cloud

Cloud, DevOps & Data: AWS • GCP • Firebase • Docker • Git • MongoDB • SQL • Elasticsearch

AI, Data Science & Networking: AWS Lex • AWS Rekognition • YOLO

CERTIFICATIONS

AWS Certified Cloud Practitioner

RELEVANT EXPERIENCE

The Ohio State University, College of Engineering **Columbus, OH**
Teaching Assistant *January 2023 – May 2025*

- Held weekly office hours to support student learning in Systems-Level Programming and Web Development, clarifying complex technical concepts and coursework.
- Graded assignments and projects with attention to detail, ensuring fair assessment and timely feedback across multiple sections.
- Assisted professors with classroom logistics, including exam proctoring and administrative tasks, contributing to smooth course delivery.

Buckeye Vertical at The Ohio State University **Columbus, OH**
Unmanned Aerial Vehicle Software Lead *September 2022 - May 2023*

- Led development of autonomous flight software for a hexacopter UAV using ROS2, MAVLink, and YOLOv8 for real-time object detection and navigation.
- Collaborated with electrical, mechanical, and AI teams to integrate sensor data, enhance system reliability, and streamline cross-platform communication.
- Supported successful autonomous flight tests and demos by optimizing software performance and troubleshooting mission-critical issues in real time.

PROJECTS

Satellite Imagery Analysis for Aircraft Monitoring, *AI Research Project* *January 2025 – May 2025*

- Designed and implemented a computer vision pipeline to detect aircraft in satellite imagery using YOLOv8 and custom-trained models on aerial datasets.
- Applied data augmentation and performance tuning techniques to improve detection accuracy and model precision in real-time analysis scenarios.
- Contributed to geospatial research initiatives focused on surveillance automation and aircraft monitoring through satellite imagery.

AI Restaurant Recommender, *Capstone Project for Knowledge-Based Systems* *January 2025 – May 2025*

- Collaborated in a cross-functional team to develop an intelligent restaurant recommendation platform using React and Next.js for the frontend and Elasticsearch for the backend.
- Built a hybrid recommendation engine integrating user preferences, geolocation, weather, and sentiment analysis to deliver personalized suggestions.
- Worked closely with team members to design a knowledge-based system that explains recommendation logic, enhancing user trust and system transparency.

Student Management System at Sycamore High School Synnovation Lab, *Creator* *August 2018 – May 2022*

- Developed a cloud-based student management system using Firebase, React, React Native, and Flutter to streamline administrative workflows.
- Integrated Google Workspace tools to create a responsive, serverless platform that enhanced classroom efficiency for teachers and staff.
- Reduced student lookup time by 200%, significantly improving access to records and daily operations within the Synnovation Lab.