

ADVAIT JAYADEVAN NAIR

hi@advaitjn.dev • 513-376-5474
github.com/AdvaitJN • linkedin.com/in/advaitjn • advaitjn.dev

EDUCATION

The Ohio State University, College of Engineering

Bachelor of Science in Computer Science Engineering

Columbus, OH

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
 Certified Developer Associate
- **Anthropic** Building with the Claude API
 Model Context Protocol: Fundamentals & Advanced Topics
 Claude Code in Action
 Claude with Amazon Bedrock & Google Vertex AI

RELEVANT EXPERIENCE

SwiftSignage - Fast, Stunning & Simple Digital Signage

Founder

Columbus, OH

August 2025 – Current

- Engineered and launched a high-reliability, low-latency WebSocket server using **Go (Golang)** to manage real-time content delivery and updates for over **5,000 digital signage screens**, achieving a service availability of **99.95% or higher**.
- Designed and optimized the server architecture to efficiently handle **thousands of persistent connections**, utilizing Go's concurrency model to maintain sub-second update propagation latency across the network.
- Implemented a custom message queue and persistent storage strategy using **PostgreSQL** to ensure message delivery guarantees and state consistency, while integrating secure protocols (WSS/TLS) and token-based authentication.
- Developed a modern, high-performance content management front-end using **SvelteKit** and **TypeScript**, leveraging built-in SSR capabilities to optimize core Web Vitals and achieve a **30% reduction** in page load times.

The Ohio State University, College of Engineering

Teaching Assistant

Columbus, OH

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

Unmanned Aerial Vehicle Software Lead

Columbus, OH

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 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 half, significantly improving access to records and daily operations within the Synnovation Lab.