

# Siva Kunapuli

614-969-8555 | [sivakunapuli01@gmail.com](mailto:sivakunapuli01@gmail.com) | [linkedin.com/in/sivak-kunapuli](https://www.linkedin.com/in/sivak-kunapuli) | [github.com/skunapuli03](https://github.com/skunapuli03)

## EDUCATION

### The Ohio State University

BSc Computer Engineering

Columbus, OH

**Graduation: Fall 2026**

## EXPERIENCE

### Data Science/ML Intern

May 2025 – Aug 2025

Cardinal Health

Dublin, OH

- **Sequential Multi-Agent AI System:** Engineering a stateful, sequential multi-agent framework using **Google's Agent Development Kit (ADK)** and **Gemini models** to automate patient matching for oncology clinical trials. Designed an orchestration agent to coordinate specialized subagents for patient matching, profile generation, and eligibility filtering.
- **Retrieval-Augmented Generation (RAG) Pipeline & Data Infrastructure:** Enhancing an end-to-end RAG pipeline integrating **Vertex AI Search** to retrieve and synthesize large-scale clinical data. Leveraged **BigQuery** for downstream analysis of agent generated output, engineering robust callback mechanisms, and structured JSON parsing to transform LLM responses into **Pandas DataFrames** for auditable analyses.
- **Collaborative Leadership:** Authored complex prompt strategies to enforce structured, schema-consistent outputs from Gemini models, ensuring high data integrity throughout the pipeline. Co-organized **5+** intern events and led **2** initiatives fostering community engagement.

### R&D Software Engineering Intern

Sept. 2023 – Dec. 2023

Chamberlain Group

Chicago, IL

- **Real-Time Streaming:** Designed a low-latency, scalable real-time streaming solution using FFmpeg and GStreamer, **consistently maintaining high-quality 1080p** playback under variable conditions, and minimal buffering to provide seamless video monitoring for security purposes.
- **Server-Side Development:** Designed and developed server-side code in **Python** for **RTSP** and **TCP** streams. **Achieved latency less than 1000ms** from the Raspberry Pi 4 camera using the socket.io and PiCamera2 libraries. Integrated mediamtx for efficient media data management to optimize performance .
- **Notification System:** Used **Java & Android** and MQTT communication services, created **2 API endpoints** to trigger alerts when the doorbell rings, **achieved a success rate 100%** in delivering real-time alerts.
- **AI & Embedded:** Experimented with STMicro Sensors & **YOLOv5 neural network** to analyze surroundings.
- **UI/UX:** Collaborated with a multidisciplinary **team of 6** engineering, UI/UX, and product design interns to develop **UI components**, and **conducted UX** surveys and interviews **with 3 smart IoT product users**.

## PROJECTS

### UGood AI Self Improvement Platform | *React, Supabase, SQL, Google Gemini API, Node.js*

- **Full-Stack Development:** Built an interactive journaling and self-reflection web application using **React** for the frontend, with **Supabase authentication** and **data storage**, and an Express **backend deployed on Render.com** seamlessly integrating with the **Google Gemini API**.
- **User Adoption:** Achieved **100+ visits** from **4 countries**, demonstrating early traction and international interest in the platform's AI-powered self-improvement capabilities.
- **RAG Pipeline Integration:** Implemented a Retrieval Augmented Generation (RAG) pipeline using users' journal entries, enabling personalized, context-aware reflective insights from the AI model.

### Speedometer Symbol Recognizer | *Android, Kotlin, Python, Tensorflow*

- **Android App Development:** Developed an **Android** app utilized **TensorFlow**, a **Convolutional Neural Network** for speedometer sign recognition, with a **team of 5**.
- **Top 5% Performance:** **Ranked 8th out of 200 teams** in Global Nationwide **Hackathon**, **achieving over a 92% accuracy**, showcasing ability to develop swiftly in high pressure environments.

## TECHNICAL SKILLS AND AFFILIATIONS

**Programming & Tools:** Python, PyTorch, Java, ReactJS, JavaScript BigQuery, Pandas, GCP, Android, JUnit, OOP, CI/CD, SQL

**Relevant Coursework:** Software Design, Data Structures and Algorithms, Linear Algebra, Discrete Math, Differential Equations, Calculus 1-3, Java, Statistics, Operating Systems, Advanced C Programming, Linux