# **Sriram Natarajan**

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### **EDUCATION**

University of Illinois, Urbana-Champaign

Major: Computer Science + Linguistics, Minor: Data Science, GPA: 3.93/4.0

**Expected Graduation Date:** 05/2027

#### **SKILLS**

Languages: Python, C++, Java, JavaScript

Tools: PyTorch, TensorFlow, OpenAI API, Scikit-learn, Pandas, NumPy, Flask, PostgreSQL, Git/Github, AWS (EC2, S3)

#### **EXPERIENCE**

### Hacker Dojo, Software Engineer Intern

April 2025 - Present

- Led the design and MVP launch of Higher Road To You, an AI powered-mental health platform, resulting in 1,000+ users
- Integrated OpenAI API to deploy a support chatbot that responds to user messages based on detected emotional tone
- Developed a Python backend to track user input and behavior to recommend personalized prompts and local events, deployed via AWS EC2 using similarity scores from user profiles

## Avian Conservation Through Spatial Data Analysis, Student Research Associate

October 2024 - Present

- Processed satellite imagery datasets using Google Earth Engine, identifying 400+ Midwest grassland regions based on vegetation index, soil composition, and climate data
- Trained and fine-tuned Machine Learning model using TensorFlow, Pytorch, and Scikit-Learn to predict grassland suitability for various bird species, achieving 82% accuracy

## Illinois Design Challenge, Infrastructure Lead

September 2024 - Present

- Led infrastructure development for a full-stack hackathon platform built with Flask backend and React frontend, designing dashboards for real-time event tracking
- Collaborated across design and logistics teams to ensure seamless deployment throughout 48-hour live event (zero reported platform crashes with over 500 participants)

#### Beyond Terra, Innovation Lead

September 2023 - July 2024

- Redesigned a second-hand drone to reforest local areas, achieving automated planting of over 3,000 seedballs
- Developed a GPS coordinate tracking system for seedball locations through Python and AWS RDS
- CAD-modeled, 3D-printed, and programmed a real-time embedded seed-dispersing subsystem using C++, leveraging Arduino microcontrollers and servo motors for automated deployment

## **PROJECTS**

## FarmSmart, First Place Hack Illinois

February 2025 - March 2025

- Launched an interactive AI Chatbot (OpenAI API) to help farmers optimize crop yield and costs through data-driven insights
- Leveraged React Native, TypeScript, and Chart.js to display real-time profit predictions in the forms of bar graphs and charts
- Devised a crop disease detection model through OpenCV and Tensorflow with 85% classification accuracy, providing tailored treatment recommendations to improving crop health

#### Calmoto

December 2024 - February 2025

- Designed a real-time driver drowsiness detection system using TensorFlow, OpenCV, & Pytorch, achieving 88% accuracy in detecting fatigue indicators
- Integrated LLM's (ElevenLabs and OpenAI APIs) to read storybooks to drivers and generate interactive questions to ensure drivers were awake/alert
- Built an Angular-based dashboard for real-time monitoring, displaying fatigue alerts and driver response analytics

### IlliniResearch

September 2024 - December 2024

- Constructed a Flask-based platform to connect UIUC students to over 500+ research opportunities on campus, storing structured faculty data in PostgreSQL database
- Implemented Cold Email Generator (OpenAl API) and Resume Reviewer (TF-IDF) tools to help students tailor outreach to professors and research listings

## **LEADERSHIP & COMMUNITY INVOLVEMENT**

**Course Assistant,** Computer Science 124 Honors

January 2025 - Present

Held 1:1 technical debugging sessions with students, explained recursion, trees, and algorithm design