

Sripad Sirikonda

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PROFESSIONAL EXPERIENCE

UIC College of Engineering

June 06 2024 - Present

AI/ML Models for Water Infrastructure Optimization internship

Aurora/Chicago IL

- Developed and implemented advanced machine learning and Bayesian optimization models to enhance water infrastructure, boosting operational efficiency by 35% and reducing resource wastage by 15%.
- Collected, cleaned, and preprocessed extensive datasets from sensor networks and public databases, ensuring data integrity and reducing data processing time by 30%.
- Conducted contamination detection simulations using WNTR and Bayesian optimization, improving detection speed by 40% and enhancing predictive accuracy by 25%.
- Preparing to publish an article detailing the implementation and impact of Bayesian surrogate models in optimizing water infrastructure systems.

Chicago Saranam Yatra Organization

December 2023-Present

Mobile Application Developer - Expo, CSS, Firebase, React-Native, Git - [Link to project](#) (In Progress)

Aurora, IL

- Developed a scheduling app for Swamis to manage poojas, targeting 400+ user registrations within the first month and supporting up to 1,000 users simultaneously.
- Created a front-end login/registration page, scheduling calendar, and appointment viewer using React Native, achieving an expected completion rate of 70% and enabling the management of over 300 appointments monthly.
- Engineered a calendar feature for scheduling appointments, designed to handle more than 600 appointments per month, ensuring seamless performance with a 99.9% uptime rate.
- Implemented a back-end using Node.js and Firebase to handle user inputs for the login/registration page, and synthesized Firestore to manage scheduling data, ensuring real-time synchronization on the calendar and improving data access speeds by 50%.

University of Illinois Chicago (UIC)

August 2024 - Present

Teaching Assistant for CS 211: Programming Practicum

Chicago, IL

- Assist students in learning C programming, focusing on debugging techniques and tools such as gdb, vim, and other debuggers.
- Lead lab sessions and office hours, providing hands-on support and clarifying programming concepts.
- Grade assignments and exams, ensuring consistent and fair evaluation of students' understanding and performance.
- Collaborate with the professor to develop course materials and enhance the curriculum.

Headstarter AI

July 2024 - Present

Software Engineering Fellow - HTML, CSS, Firebase, ReactJS, Git, Google Analytics

Remote

- Built and deployed 5+ AI applications and APIs using NextJS, OpenAI, Pinecone, and StripeAPI, achieving 98% accuracy and positively impacting over 1000 users by enhancing user experience and engagement.
- Led the end-to-end development of projects, from design to deployment, by managing a team of 4+ engineering fellows, implementing MVC design patterns, and ensuring high code quality and maintainability.
- Received coaching and mentorship from industry experts at Amazon, Bloomberg, and Capital One, focusing on best practices in Agile methodologies, CI/CD pipelines, Git workflows, and microservice architecture, significantly improving team efficiency and project delivery timelines.
- Implemented robust testing and monitoring frameworks, conducting over 200 automated tests and continuous performance monitoring, which reduced post-deployment issues by 30%, ensuring a 99.9% uptime and swift issue resolution within 24 hours.

PROJECTS

Pantry Tracker Web App - TensorFlow.js, RESTful APIs, Firebase, React.js, Cloud Storage Management - [Github Project](#)

- Increased pantry organization efficiency by 50% by developing a full-stack pantry management application, implemented real-time inventory tracking, image classification with 90% accuracy for automated item categorization, and integrated recipe suggestions based on user data - [Link to web app](#) - [Link to demo](#)

Traffic Congestion Predictor - Git, Python, Flask, PostgreSQL, Machine Learning, OSMnx, WeatherAPI.com, RESTful API

- The problem is optimizing traffic and navigation by predicting real-time traffic conditions to provide the best routes. Collected historical and real-time traffic data, including weather conditions, to train a machine learning model. Still developing a backend server using Flask that processes user inputs, uses the trained model to predict traffic flow, and then back API - [Link to project](#) (In Progress)

EDUCATION

University of Illinois Chicago (UIC) - Standing: Junior

December 2025

- BS in Computer Science | College of Engineering | Google Developer Student Club, Lunabotics, ACM

SKILLS/INTERESTS

Frontend/Backend: React.js, React Native, Node.js, Flask, HTML/CSS, JavaScript, PHP, AngularJS, Web Development, UI/UX Design, REST APIs, Firebase, Postgres, Android Development

Languages/Frameworks: Python, Java, C/C++, SQL, MongoDB, NoSQL, TypeScript, Bash, PowerShell, Objective-C, R, Git, iOS/Swift

Others: Software Testing, Excel/Word, Cold Calling, Development Operations (DevOps), Figma, Graphic Design, Computer Networking, Financial Markets, Investing

Interests: Investing, Robotics, Cars, Video/Photo Editing, CAD, Coding, Planning, Movies, Gaming, Stock Trading, Sports