

# SIRAJ PATNAM

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## EDUCATION

Saint Louis University, College of Engineering | St Louis,  
Master of Science in Information Systems  
Relevant Coursework: Applied Analytics And Methods, Advanced Software Development, Information Retrieval,  
Ethical and Evidence Based Decision Making, Data Visualization.

MO Expected May 2025  
GPA: 3.9/4.0

Muffakham Jah College Of Engineering And Technology | Hyderabad, India  
Bachelor of Technology in Computer Science  
Relevant Coursework: Data Analytics, Big Data, Databases, Artificial Intelligence, Machine Learning, Cloud Computing.

July 2023

## TECHNICAL SKILLS

**Languages/ Frameworks:** Python, Java, C, C++, SQL, R, HTML, CSS, JavaScript, MATLAB, Django.

**Tools and Technologies:** Machine Learning, Deep Learning, Data Analytics, Data Visualization, Computer Vision, AWS, Tableau, PowerBI, git, LLM, Generative-AI, Docker, Streamlit.

## WORK HISTORY

Software Engineering Fellow,  
HeadStarterAI -- Remote

07/2024 to Present

- Participating in a 7-week, remote and asynchronous program focused on AI and software engineering
- Building 5 AI projects and participating in hackathons
- Working towards making a final project with an accepted PR from an open-source community

Data Analyst Intern,  
Washington University, University Advancement -- St. Louis, MO

06/2024 to Present

- Assisted the donor relations team in becoming more data-driven by developing and implementing analytics strategies
- Developed a donor scoring system to assign scores to potential donors, improving targeting and fundraising efficiency resulting in a 15% increase in successful donor outreach.
- Analyzed and reported on donor data, creating visualizations and presentations to share insights with stakeholders
- Conducted regular data analysis tasks, including data cleaning, modeling, and interpretation

GlobalGrad Intern,  
Saint Louis University – St. Louis, MO

- Led the "Navigating SLU" project, conducting comprehensive research to enhance campus onboarding experiences for newly admitted students
- Developed and proposed innovative strategies to streamline campus navigation and improve accessibility of resources
- Created a digital guide with interactive maps and FAQs, reducing new student inquiries by 30% and improving satisfaction rates

Data Science Intern,  
Data Exposys Labs -- Hyderabad

04/2023 to 07/2023

- Provided customer service across communication channels. Organized data and analyzed problems to find solutions.
- Researched, compiled reports, visualized data, and applied data science techniques to solve business issues.
- Identified, analyzed and interpreted trends in complex data sets using supervised and unsupervised learning techniques.

## PROJECTS

Shooting Star (e-Hacks Hackathon), 04/2024

- Implemented a modified AlexNet CNN architecture, optimized for star pattern detection, achieving 86% accuracy
- Utilized advanced image processing techniques including noise reduction and contrast enhancement
- Integrated astrometry.net API for precise sky coordinate mapping and constellation identification
- Won the "Best Use Case of AI" award for innovative application of computer vision in astronomy

Diabetes Prediction System

- Utilized dataset from the National Health Portal of India, comprising 100,000+ patient records
- Implemented ensemble learning approach, combining Random Forest, XGBoost, and Logistic Regression
- Achieved 95% prediction accuracy on test data, with key factors being BMI, blood glucose, and family history and built responsive web interface using Flask backend and Bootstrap frontend

Forest Fire Detection System

- Utilized YOLOv5 algorithm, fine-tuned on a custom dataset of 10,000+ images collected from Kaggle and NASA's fire dataset
- Achieved 90% detection accuracy, with low false-positive rate in varying light and weather conditions
- Implemented real-time processing capabilities, analyzing up to 30 frames per second
- Developed a user-friendly dashboard using Streamlit for monitoring and alert system

## EXTRA-CURRICULUM

Event Volunteer, APCE Annual Christian Education Conference:

- Managed over 800 attendees at the annual event held at Union Station. Assisted with event logistics, attendee registration, and information distribution.

Accomplishments: Placed 1st in Britannica Know for sure 3, 3rd place in the NASA space settlement contest, 2nd place in CSI MJCET "Tech - March" Hackathon

