

Rohan Mukka

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portfolio-rohan03.vercel.app

SUMMARY

Highly motivated **Software Engineer** specializing in **Machine Learning (ML)**, **Full-stack Development**, and **Distributed Systems**. Proven ability to design and deploy **scalable solutions** using **Python**, **Java**, and **JavaScript**. Expertise includes developing robust **RESTful APIs**, optimizing data pipelines, and implementing **CI/CD** workflows. Seeking a challenging **Software Engineering** role to leverage skills in **AI/ML** and modern **web application development**.

EDUCATION

University of Oklahoma

Master of Science in Computer Science — GPA: 4.0/4.0

Oklahoma, United States

Aug 2024 – May 2026

CVR College of Engineering

Bachelor of Technology in Computer Science and Engineering (Minor in AI/ML) — GPA: 9.1/10.0

Hyderabad, India

Aug 2020 – May 2024

EXPERIENCE

ML Engineer Intern

July 2024 – Aug 2024

Internpe

Remote

- Engineered and fine-tuned **Machine Learning (ML)** models for predictive analytics using **Python**, **TensorFlow**, and **Scikit-learn**, achieving a 20% improvement in prediction accuracy.
- Streamlined data preprocessing and advanced feature engineering pipelines, significantly reducing model training time and enhancing **ML Infrastructure** efficiency.
- Collaborated with **Software Development** teams to implement and deploy robust **AI/ML solutions** into production environments, utilizing agile methodologies.

PROJECTS

p0.75@r **BEneFIT: A Decentralized Fitness Accountability Framework** | Solidity, Ethereum, React, Node.js | [GitHub](#) Apr 2025

- Developed and deployed secure **Solidity Smart Contracts** on the **Ethereum** blockchain for ETH-staking models (Lock-and-Release, Redistribution), boosting goal completion by 35%.
- Implemented a **Full-stack** application featuring a **React** frontend and a secure **Node.js** backend utilizing OAuth for user authentication and data management.
- Designed a highly decentralized and flexible **Distributed System** architecture, driving 30% higher user engagement compared to centralized fitness applications.

p0.75@r **Internship Program Management System (IPMS)** | React.js, Node.js, MongoDB, RESTful APIs | [GitHub](#) Jan 2025

- Engineered a **Full-stack Web Application** using the MERN stack (**React.js**, **Node.js**, **MongoDB**) to manage internship workflows, boosting submission efficiency by 30%.
- Developed robust **RESTful APIs** for seamless data exchange between the frontend dashboard and the backend database, ensuring high availability and performance.
- Implemented automated approval systems and notification reminders for supervisors, cutting manual follow-ups by 50% and enhancing overall **Software Development** process compliance.

p0.75@r **Hybrid Diagnostic System: Integrating ML and Knowledge-Based Inference** | Python, Protégé, SWRL Mar 2024

- Designed a robust diagnostic system integrating rule-based inference and **Machine Learning (ML)** models in **Python**, achieving a 25% increase in diagnostic accuracy.
- Utilized **Protégé** and **SWRL rules** to structure complex medical knowledge and implement a sophisticated knowledge graph for identifying symptom patterns.
- Enhanced system reliability by employing **ML algorithms** to analyze patient data when rule-based methods were inconclusive, demonstrating expertise in hybrid **AI/ML** systems.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript, SQL, Kotlin, HTML/CSS, JQuery, Typescript, MATLAB

Developer Tools: GitHub, Gitlab, Kubernetes, Docker, AWS, Pycharm, Oracle database, Eclipse, Jenkins

Frameworks/Tools: React.js, Node.js, Firebase, Bootstrap5, Google Cloud, TensorFlow, Scikit-learn, Angular, Django, Next.js, Solidity

Platforms: Linux/Unix, Windows, Git, Microsoft Office Suite

Concepts: **Software Development**, **Full-stack Web Development**, **Machine Learning (ML)**, **Distributed Systems**, **RESTful APIs**, MVC Architecture, Data Structures & Algorithms, **AI/ML Infrastructure**, Natural Language Processing (NLP), Security Software Development, Accessible Technologies, Generative AI, Reinforcement Learning

EXTRACURRICULAR ACTIVITIES

Participated in and organized multiple hackathons, and contributed to IEEE workshops and AI/ML projects, gaining hands-on experience in innovation, leadership, and collaborative problem-solving.

Solved over 400 Data Structures and Algorithms problems across different platforms.

Mentored 50+ students in web development and problem-solving at GDSC Bootcamp, enhancing peer learning and project quality.