Naga Nikshith Gangarapu

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Summary

- Tech Lead and Full Stack Developer with 4+ years of experience in software engineering, AI safety evaluation, data analysis, and ETL development.
- Currently leading engineering efforts for Project Moonshot at Singapore's AI Safety Institute (AISI), developing novel evaluation frameworks for LLMs and agentic AI systems through international collaboration.
- Expertise in full-stack development (React.js, Node.js, Express.js, MongoDB), AI/ML evaluation methodologies, REST APIs, and cloud services (AWS).
- Strong track record of translating research into production systems, leading cross-functional teams, and delivering scalable solutions in fast-paced environments.

Technical Skills

Python, JavaScript, Node.js, React.js, Express.js, SQL, C/C++, HTML, CSS, RESTful APIs, Redux, React Router, MongoDB, MySQL, PostgreSQL, Oracle, Amazon RDS, AWS (EC2, S3, EMR, Athena, Redshift, SageMaker, Bedrock, QuickSight), PyTorch, LLM Evaluation, AI Safety Benchmarking, Pandas, Matplotlib, Seaborn, Git, GitHub, Docker, Postman, VSCode, Jira, Linux, Windows, Tableau, Power BI, ETL, Agile, Scrum

Experience

Tech Lead / Research Engineer II Nov. 2024 – Present

AI Safety Institute (AISI) Singapore / Digital Trust Centre (NTU) *Singapore*

- Lead engineering for Project Moonshot, a flagship international initiative with partners across 10 countries, focused on multilingual LLM evaluation and agentic AI safety assessment.
- Pioneer novel benchmark development and evaluation methodologies for complex AI systems, leveraging multi-LLM architectures and integrated tool-use capabilities to establish reliable safety metrics.
- Translate cutting-edge research in AI safety (red teaming, bias detection, alignment) into production-grade evaluation infrastructure, enabling rigorous testing of commercial and open-source AI systems.
- Architect and evolve a comprehensive full-stack research platform using React and Node.js, continuously adapting the system to evaluate sophisticated AI behaviors across linguistic and cultural contexts.
- Design and implement scalable backend services (Node.js/Express) that efficiently process diverse data types including interaction logs, text outputs, and evaluation metrics across multiple languages.
- Develop core components for the multilingual evaluation framework that contributed to findings presented at the AI Action Summit (AIAS) in Paris (Feb 2025).
- Coordinate technical progress across international research partners, ensuring consistent evaluation methodologies while adapting to rapidly evolving AI capabilities and safety requirements.

Software Developer Jan. 2023 – Nov. 2024

MBM Cloud *Austin, Texas, USA*

- Led technical architecture decisions for a mission-critical cloud application, implementing full-stack solutions using React, Redux, Node.js, and Express that served thousands of daily users.
- Engineered responsive and dynamic user interfaces with React, implementing efficient state management patterns that improved frontend performance and developer productivity.
- Developed secure and performant REST APIs that reduced authentication time by 25% and optimized core business logic and data services through advanced caching strategies.
- Implemented complex UI features including multi-level drag-and-drop editors with seamless CRUD operations and real-time backend synchronization using WebSockets.
- Collaborated effectively within an Agile/Scrum framework, participating in daily standups, sprint planning, and retrospectives while mentoring junior developers on best practices.

Software Developer Jan. 2021 – Jul. 2022

TATA Consultancy Services (TCS) *Hyderabad, India*

- Collaborated with cross-functional teams to enhance financial services products, focusing on market penetration strategies, user experience improvements, and regulatory compliance.

- Developed complex SQL queries to extract insights from large financial databases, generating actionable management reports that directly influenced strategic decision-making.
- Created and tracked Key Performance Indicators (KPIs) by analyzing financial master data, delivering insights that improved operational efficiency by 20%.
- Supported ETL processes across operational and data warehouse environments, ensuring data integrity and consistency for critical financial analysis and reporting.
- Managed the full lifecycle of data-related issues using Jira, from identification through resolution, ensuring timely completion of projects and alignment with business objectives.

Full Stack Developer (Internship) Aug. 2019 – Jan. 2020
CPP SECRETS *Remote*

- Designed and implemented an interactive programming quiz application and enhanced website functionality using JavaScript, PHP, and MySQL, improving user engagement and educational effectiveness.

Projects

Sales Prediction System | *Python, Pandas, Scikit-learn, SQL, Tableau* Link

- Developed a machine learning model to predict future sales for Rossmann stores, achieving 91% accuracy through feature engineering and gradient boosting algorithms.
- Created interactive Tableau dashboards visualizing key performance factors and regional trends across 1,000+ stores.

Patient Readmission Predictor | *Python, SQL, Scikit-learn, Tableau* Link

- Built a predictive model for hospital readmissions using patient demographics and medical history, achieving 87% accuracy in identifying high-risk patients.
- Designed comprehensive data visualizations highlighting correlations between treatment protocols and readmission rates.

Education

University of North Carolina Charlotte Charlotte, NC, USA
Master of Science in Computer Science *Aug. 2022 – Dec. 2023*

- GPA: 4.0/4.0
- Coursework: Machine Learning, Artificial Intelligence, Data Mining, Cloud Computing, Advanced Algorithms

Swami Vivekananda Institute of Technology Hyderabad, India
Bachelor of Technology in Information Technology *Jul. 2017 – Jul. 2021*

- GPA: 8.45/10.0
- Senior Project: Developed an automated attendance tracking system using facial recognition.