Naga Nikshith Gangarapu

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Summary

- Results-oriented Technology Lead and Research Engineer II with 4+ years of experience spanning AI safety evaluation, LLM/agentic workflow benchmarking, full stack development, and data analysis.
- Currently leading engineering for Project Moonshot at Singapore's AI Safety Institute (AISI) / Digital Trust Centre (NTU), building critical infrastructure and methodologies for evaluating cutting-edge AI.
- Expertise in Python, PyTorch, Transformer models, LLM evaluation, AI Safety principles, MERN stack development, scalable backend systems (Node.js), and AWS.
- Proven ability to translate complex research into practical engineering solutions, lead technical projects, and collaborate effectively with international, cross-functional teams in Agile environments.

TECHNICAL SKILLS

Python, JavaScript, Node.js, SQL, C/C++, LLM Evaluation Benchmarking, AI Safety, Transformer Models (e.g., BERT, GPT, Llama families), PyTorch, Scikit-learn, NumPy, Pandas, Agentic AI/Workflows, Prompt Engineering (for evaluation), React.js, Express.js, HTML, CSS, RESTful APIs, Redux, MongoDB, MySQL, PostgreSQL, Oracle, Amazon RDS, Cloud (AWS): EC2, S3, RDS, Cloud Compute/Storage/Database services, Git, GitHub, Postman, VSCode, Jira, Linux, Windows, Tableau, Power BI, ETL, Agile, Scrum

EXPERIENCE

Tech Lead / Research Engineer II

Nov. 2024 - Present

Singapore AI Safety Institute / Digital Trust Centre (NTU)

 $Singapore,\ Singapore$

- Lead engineering for Project Moonshot, building infrastructure and methodologies for **AI safety** evaluation of **Large Language Models (LLMs)** and **agentic workflows** in collaboration with global partners.
- Pioneering the development of novel benchmarks and **LLM evaluation** methodologies, utilizing **Python** and **PyTorch** to assess capabilities and risks of **Transformer-based models**.
- Translate cutting-edge **AI** safety research into practical engineering solutions, developing critical evaluation infrastructure supporting diverse testing protocols (e.g., red teaming, bias analysis).
- Architected and actively evolving a comprehensive full-stack research platform (**React**, **NodeJS**) on **AWS**, enabling efficient management and analysis for **LLM evaluation** experiments.
- Designed and implemented scalable backend services (NodeJS/Express, REST APIs) for processing diverse data (text, interaction logs) essential for LLM and agentic AI safety benchmarks.
- Developed core components of the multilingual **LLM evaluation framework**, contributing to findings presented by AISI at the AI Action Summit (AIAS, Paris, Feb 2025).
- Govern technical progress across Project Moonshot workstreams, coordinating efforts on **evaluation methodologies** and infrastructure use among international research partners.

Software Developer

MBM Cloud

Jan. 2023 – Nov 2024

 $Texas, \ US$

- Contributed significantly to the full-stack development (React, Node.js) of a mission-critical cloud application, playing a key role in technology selection and architectural design.
- Engineered highly responsive UIs using React, implementing Redux for state management and React Router for SPA navigation.
- Developed secure and performant **REST APIs** using **Node.js/Express**, optimizing core business logic; achieved a 25% reduction in authentication time.
- Successfully implemented complex UI features, including multi-level drag-and-drop editors with CRUD functionality and real-time backend synchronization.
- Collaborated effectively within an **Agile/Scrum** framework with cross-functional teams across the full Software Development Life Cycle (SDLC).

Analyst I

Jan 2021 – Jul. 2022

TATA Consultancy Services (TCS)

Hyderabad, India

- Collaborated within a cross-functional team to enhance a financial services product.
- Utilized **SQL** extensively to query large financial databases, generating insightful management reports.

- Developed and tracked Key Performance Indicators (KPIs), leading to a 20% improvement in operational efficiency.
- Provided essential support for **ETL** processes, ensuring data integrity for analysis across operational and data warehouse environments.
- Managed the lifecycle of financial data issues using **Jira**, from identification through resolution.

Full Stack Developer (Part-time/Contract) CPP SECRETS

Aug 2019 – Jan 2020

Remote

• Developed and implemented multiple front-end and back-end features for the company website, including designing and building an interactive quiz application.

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

 $\underline{\text{Link}}$

- 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

Aug. 2022 - Dec. 2023

Master of Science in Computer Science

• 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.