Prahlad Sahu

Generative AI Engineer | M.Tech AI/ML | Full-Stack Developer at Dassault Systèmes | Ex-ISRO Intern | Specialized in LLMs & FEA

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Profiles

in prahlad

◈ ps2program

Skills

Web Development
◆ ◆ ◆ ◆ ◇

Generative AI and Machine Learning
Full-Stack Development Frontend Frameworks (React, Angular, or similar) Backend Development (Node.js, Django, or similar) API Design and Integration
◆ ◆ ◆ ◆ ◇

Software Development
Scalable Application Architecture User-Centered Design Principles Performance Optimization
◆ ◆ ◆ ◆ ◇

Collaboration and Achievements
Collaboration with Organizations (e.g., ISRO) Patent Holder for GSLV Mark 3
◆ ◆ ◆ ◆ ◆

Additional Skills
Simulation Software Development Agile Development Practices Problem Solving and Algorithm Design
◆ ◆ ◆ ◆ ◆

Interests

Guitar & Singing

Awards

Out of Box Thinker
Dassault Systems
March 2024

Recognized for innovative problem-solving and creative solutions.

Publications

Common Bulkhead Tank Design for Cryogenic Stage of an Indian Launch Vehicle 🌐
Defence Science Journal
1 January 22

Design interstage replacement for GSLV Mark-III

Languages

JavaScript
◆ ◆ ◆ ◆ ◆

Python
◆ ◆ ◆ ◇ ◇

C++
◆ ◆ ◆ ◆ ◆

C#
◆ ◆ ◆ ◇ ◇

Summary

A results-driven **Generative AI & Full Stack Engineer** with 4 years of experience in building innovative software solutions. Specializes in integrating **AI** workflows, **Generative AI**, and **Full Stack Development** to create scalable applications. Passionate about using large language models (LLMs) to drive user-centered design in complex applications. Collaborative experience with top-tier organizations like **ISRO** and a patent holder for **GSLV Mark-III**.

Experience

Dassault Systèmes   March 21 - Present
Sr Software engineer -GenAI & Full Stack   Pune
🔗 https://www.3ds.com/about/company/office-locations/india/pune-campus

ISRO   2019 - 2020
Internship   Kerala

Work along with Scientists and PhD

Education

NIT Raipur   2016 -2020
Mechanical Engineering   B.Tech
8.82 GPA
🔗 https://nitrr.ac.in/

BITS Pilani - Work Integrated Learning Programmes   2024 - 2026
AL/AI   Masters of Technology

Jawahar Navodaya Vidyalaya (JNV)   2008 -2015
PCM   10+12th
88.5 %

Projects

Chat Application Using LLMs and Generative AI

- Designed and developed an intelligent chat application leveraging **Large Language Models (LLMs)** for natural and context-aware conversations.
- Integrated **generative AI workflows** to enhance user interaction and automate responses.
- Deployed the application using **FastAPI**, ensuring scalability and high performance.

Web Application for Simulation Software (Competitor to Ansys Discovery)   2022 - 2024

- **Developed a comprehensive web application** for mechanical, thermal, and fluid simulations, competing with Ansys Discovery.
- **Frontend built with JavaScript**, providing an intuitive and responsive user interface for simulation control and visualization.
- **Backend implemented in C++**, enabling efficient and high-performance simulation processing.
- **Hosted on an in-house deployment server**, ensuring secure, reliable, and controlled access to the simulation software.
- **Optimized for large-scale simulations**, offering users a powerful tool for real-time analysis and results.

AI-Insight   2023

- **Designed a machine learning model** that analyzes previous simulation data to predict outcomes without the need for re-running FEA calculations.
- **Improved simulation efficiency** by reducing computation time and resource usage.
- **Leveraged historical simulation data** to train the model, providing accurate predictions for mechanical, thermal, and fluid simulations.
- **Integrated the model** into existing simulation software workflows, enhancing overall productivity and decision-making speed.

References

Yogesh Pratap
Phd

G.Gaba
Professor