

Rahul Sunil

GENERATIVE AI SOFTWARE ENGINEER

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Accomplished Generative AI Engineer with extensive experience designing and deploying AI-driven solutions, including patented workflows and enterprise-grade products. Proven track record of reducing workflow inefficiencies by 60%, securing \$35M Series B funding, and driving innovation through scalable architectures and cutting-edge AI technologies. Seeking to leverage expertise in LLM fine-tuning, scalable AI systems, and cross-functional leadership to advance AI capabilities at leading technology organizations.

Experience

Certa | Product Engineer (GenAI Product Owner)

May 2023 - Present

- **Developed DesignAI**, a GenAI Solution Designer Assistant, reducing workflow time by 60%, now **adopted by Fortune100 clients**.
- **Delivered high-priority client solutions** for Fortune100 companies, ensuring seamless operations under tight deadlines.
- Led architectural upgrades for **DesignAI**, introducing load balancing, retries, and dockerization, resulting in a **10x performance boost**.
- Enhanced debugging and analytics by integrating Datadog with Portkey and APM, optimizing LLM call performance during scaling.
- **Filed a patent for Workflow Context Extractor V2**, improving accuracy from 62% to 97% with GPT fine-tuning techniques.
- Established automated testing pipelines using Pytest, achieving 85% code coverage and robust reliability with Pydantic validations.

Accubits Technologies Inc | Product Engineer

April 2022 - April 2023

- Prototyped OpenMind, a Flask-based microservice for **Organizational Network and Employee Behavior Analysis**, laying the foundation for scalable analytics solutions.
- Engineered a **GenAI-based Chrome extension** module for the Bud project, enabling skill creation from prompts.
- Spearheaded planning, development, and deployment for 10+ projects, including an Employee Skill Inventory system using ELK and MongoDB, streamlining skill tracking for enterprises.
- Contributed **CodeEgo**, a Python multi-tenant microservice software for SAST code analysis.

Open Source Experience

Microsoft | Field Data Technologies | Research Intern

October 2021 - June 2022

Engineered an **Unmanned Ground Vehicle (UGV)** for **detecting and surveying endangered species**. Implemented **Python libraries** to interface and communicate with the UGV using XBee modules, and pioneered a method for transmitting **images and data between XBee modules** via ZigBee communication, without requiring an internet connection.

Kerala Police Cyberdome | Front-end Team Lead

February 2021 - September 2021

Led a 3-member front-end team for **Grapnel**, a web app for **crawling, searching, and analyzing the dark web**. Developed critical components of the **Angular application** and collaborated with multiple teams to integrate **GraphQL APIs**. The project earned a 10 Lakh prize and became one of the **most acclaimed cybersecurity products in the nation**.

Tata Consultancy Services | Research Intern

June 2021 - September 2021

Developed **deep learning model APIs** for low-code applications using Flask and TensorFlow. Contributed to an **image-based virtual try-on solution** using GANs and OpenCV, enhancing user experience in fashion technology applications.

Cisco ThingQbator | Project Team Lead

June 2020 - September 2020

Managed a team of 5 to build **BitMedi**, a system for securely storing patients' medical history. Developed a robust Django server to handle database interactions and processing. The project earned recognition as one of the **Best Projects** at Cisco ThingQbator and secured seed funding.

Skills

Python, Large Language Models, Django, QDrantDB, MongoDB, OpenAI, Anthropic, Portkey, PostgreSQL, AWS Lambda, AWS S3, AWS Cloudwatch, AWS Serverless, Docker, Azure AI, JavaScript, Flask, GraphQL, TensorFlow, Keras

Patents

Workflow Context Extractor: GenAI Large Workflow Management

Filed at United States and India by Young Basile Law Firm

November, 2024

- **Proposed and developed Workflow Context Extractor**, a novel solution achieving over 94% accuracy in bulk actions, which was subsequently approved for patent publication.
- **Authored and submitted a patent application** for the innovative Workflow Context Extractor, enhancing internal user experience and meeting high-priority product requirements.

Publications

DJMol: An open-source modeling platform for computational chemistry and materials science with a Python interpreter

Journal of Computational Chemistry | Impact factor: 3.376

August, 2021

BitMedi: Application to Store Medical Records Efficiently

International Conference On Evolutionary Computing And Mobile Networks

September, 2021

Unmanned Ground Vehicle for Survey of Endangered Species

International Conference on Communication and Intelligent Systems

December, 2022

Accident Alert System with False Alarm Switch

International Conference on Computer Networks, Big Data and IoT

December, 2020

Projects

smarTangle

June 2020 – July 2020



- Developed a **Django** Web App with **PostgreSQL** as primary DB and **InfluxDB** for Time Series Data.
- Developed APIs using **Django Rest Framework** for the Web Server to communicate with the Flutter Mobile Client.
- Integrated **IOTA Tangle** Network for storing data in a secure way and hosted the entire project in **AWS** and then **GCP**.

Education

2022	APJ Abdul Kalam Technological University Trivandrum	B.Tech in Computer Science (8.37/10)
2018	Kendriya Vidyalaya, Pattom (2nd Shift) Trivandrum	CBSE Computer Science - 12th Grade (87%)
2016	Our Own English High School (Boys Branch) Sharjah	CBSE - 10th Grade (9.6/10)

Achievements

Sep 2021	Hackathon Winner , Hac'KP International Hackathon - 5th Edition	International Level Hackathon
Jan 2021	Hackathon Winner , 'HackX' - National Institute of Technology, Calicut Hackathon	National Level Hackathon
Sep 2020	Top 12 Projects and Received Seed Fund - BitMedi , Cisco ThingQbator	National Event
Sep 2020	Top 15 Projects , YouthTech Competition by startAD and Abu Dhabi Government	International Event
Jan 2020	Govt. Funded Project , KSCSTE - Student Project Fund	Kerala State Fund
Dec 2019	D3Code Hackathon Finalist and Got Placed in UST , UST Global	National Level Hackathon