# PEEYUSH SANAM

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## Profile Summary

- **10.5+ years** of experience leading teams in strategizing, developing, and deploying highly efficient solutions across Web and Mobile Applications with expertise in Banking, Retail, AI, and IoT platforms, primarily using **Python** with **GenAI – OpenAI, VertexAI, Gemini**, **FastAPI**, **Flask, Django**, and **ReactJS**. Additionally, I have a good exposure to cloud technologies like **AWS**, Azure, and GCP, along with containerization using **Docker**/K8s to serve **microservice**-based applications.
- Demonstrated excellence in various roles including **Individual Contributor**, **Mentor**, and **Lead**.
- Steered projects through every phase of the software development life cycle with finesse, leveraging **Agile Scrum**, **DevOps,** and **Waterfall** methodologies.
- Demonstrated ability to collaborate effectively with stakeholders at all levels, including business leaders, developers, designers, and QA engineers, fostering a culture of teamwork, transparency, and continuous improvement.
- Strong problem-solving skills and a strategic mindset, capable of identifying opportunities for process optimization, automation, and streamlining workflows to drive business outcomes.
- Demonstrated a knack for quickly grasping new technical concepts and applying them effectively.
- Strong communicator and team player with excellent analytical, problem-solving, and organizational abilities.

## Work Experience

**MResult – Architect –** October 2024 to February 2025
**Persistent Systems Limited – Project Lead** – May 2023 to September 2024
**Rootsquare Technologies – Senior Application Developer** – Jan 18 to Apr 23
**Techfleeters – IoT Application Developer** – August 2014 to December 2017

## Education

**Bachelor of Technology –** Rajasthan Technical University – (2010-14)
E&CE

## Key Skills and Knowledge

Python with FastAPI/ Flask/ Django, SQL, Postgres
Generative AI (OpenAI),
React JS, Flutter,
Docker, Kubernetes;
AWS – S3, Lambda, Batch, Glue, Cloud Watch, SNS, SQS, RDS, CF, Fargate, CodeCommit;
Azure- BlobStorage, DevOps, OpenAI;
GCP- VertexAI, Firestore, Gemini;
Microservices Architecture

## Udemy Certifications

Google Cloud Digital Leader
Python & Django Full Stack Developer
AWS Developer Associate
The Ultimate React
The Complete JavaScript
The Complete Flutter Development
Deep Learning with PyTorch
Python for Data Science & ML

## Other Skills

JavaScript, HTML, CSS (BS, Tailwind)
Embedded Firmware (Arduino, R-Pi)

## Version Control

Azure DevOps,
Github,
Gitlab,
BitBucket

**Project Details**

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**MRESULT**                                                                                    **October 2024 to February 2025**

Project Title: **IAS Vox Transcription, Pfizer**

Role: **Architect**

Description:

- A real time speech to text transcription service

Responsibilities:

- Design and implement a real-time STT service leveraging cloud vendors like **GCP**, **Azure**, **AWS**
- Ensuring seamless integration with client service using Web-sockets and HTTPS Handshakes
- Optimize application performance to achieve low-latency high accuracy results.
- Implementation of cloud-formation for environment setups.
- Managing GitHub workflow actions.
- Maintain comprehensive technical documentation for all developed components.

**PERSISTENT SYSTEMS LIMITED**                                                    **May 2023 to September 2024**

Project Title: **QA Automation Tool using GenAI**

Role: **Senior Software Engineer**

Description:

- Implementation GenAI based automation for QA Tasks.

Responsibilities:

- Tech-stack involved FastAPI, ReactJS, MongoDB, Azure OpenAI
- Creating different agents to perform QA steps from requirement generation to automation script generation
- Improving the existing design patterns by leveraging Queuing techniques for long running tasks.

Project Title: **Database Role Manager (Commonwealth Bank), Australia**

Role: **Senior Software Engineer**

Description:

- A database security & enablement service platform for users to get DB access and control

Responsibilities:

- Develop and maintain RESTful APIs using Python **Django-DRF** & **ReactJS**.
- Enhance and optimize existing functionalities.
- Ensure seamless integration with existing engines.
- Optimize application performance and ensure scalability.
- Maintain comprehensive technical documentation for all developed components.

Project Title: **Change Management Tool**

Role: **Senior Software Engineer**

Description:

- Implementation and enhancement of Automobile Parts Change Management Tool.

Responsibilities:

- Changing the existing workflow to improve the performance of application.
- Tech-stack involved FastAPI, ReactJS, NodeJS, GraphQL, MongoDB, AG-Grids, K8s
- Modifying the existing GraphQL to obtain results more efficiently
- Improving Databricks Data Ingestion pipelines to ingest runtime changes live into DB.

Project Title: **Furniture E-commerce Platform, US**
Role: **Senior Application Developer**
Description:

- An e-commerce platform for Furniture. The key objectives were to improve the functionalities and maintenance of certain features related to Supply Chain and Routing Tech.

Responsibilities:

- Develop and maintain RESTful APIs using Python **FastAPI**.
- Enhance and optimize supply chain and routing functionalities.
- Ensure seamless integration with MS-SQL databases.
- Conduct regular code reviews to ensure high code quality and adherence to best practices.
- Optimize application performance and ensure scalability.
- Collaborate with cross-functional teams to align development efforts with business goals.
- Maintain comprehensive technical documentation for all developed components.

Project Title: **Developer Portal & Catalog, US**
Role: **Project Lead cum Engineering Manager**
Description:

- A Backstage-based UI application (ReactJS) driven by microservice architecture for developers. It helps manage applications, services, and workflows, offering tools for monitoring application performance, tracking Git pull requests, creating new projects through customizable workflows, and monitoring costs. It streamlines development processes, fosters collaboration, and enhances productivity within development teams.

Responsibilities:

- Understand technical requirements and design the architecture of plugins/workflows with the catalog.
- Lead the development of new features or modifications of services, APIs, and UI modules based on client requirements.
- Utilize FastAPI and ReactJS (Typescript) with PostgreSQL, Kafka topics, and Git migrations.
- Manage GCP buckets, GBQ utilization, and K8s configurations.
- Implement Gen-AI for automated unit-test writing with Vertex-AI (GCP).
- Set up and manage Datadog monitors for system observability.
- Foster a collaborative and productive team environment, promoting open communication and knowledge sharing.
- Conduct regular code reviews to ensure high code quality and adherence to best practices.
- Coordinate with cross-functional teams to ensure alignment with business and technical objectives.
- Maintain comprehensive technical documentation for all developed components.
- Provide mentorship and support to team members, fostering professional growth and technical expertise.
- Stay updated with industry trends and technologies, promoting the adoption of innovative solutions.
- Continuously seek opportunities for process improvement and efficiency gains within the development lifecycle.

**ROOTSQUARE TECHNOLOGIES**                                                     **Jan 2018 to April 2023**

Project Title: **Navigator Application**
Role: **Senior Software Engineer**
Description:

- Enhance and implement new features to existing navigator application using GenAI.

Responsibilities:

- Implementation of new prompt changes for GenAI based services

- Integration of Lang-chain and multi-agent architecture to achieve better results
- Utilize FastAPI based microservices for streaming responses in ReactJS (Typescript) based application.
- Implementation of new Session Services to handle history and other metadata more smoothly.
- Enhancing the existing workflow and execution services.
- Database migration using AWS Glue services.

Project Title: **Credit Card Application, US**
Role: **Lead API Backend**
Description:
- A Fintech application aimed at students, offering credit cards with no credit history requirements, no late fees, no interest charges, and cashback perks.

Responsibilities:
- Lead the development and support of RESTful APIs using Flask and FastAPI, ensuring seamless integration with PostgreSQL databases.
- Coordinate with the mobile app team to align UI expectations and work closely with QA to ensure an error-free flow.
- Foster a collaborative and productive team environment, promoting open communication and knowledge sharing.
- Oversee the implementation of AWS Batch jobs, Lambda functions, and SNS/SQS for event-based triggering and asynchronous operations.
- Implement and manage Redis-based cache control to enhance application performance.
- Conduct regular code reviews to maintain high code quality and ensure that the business logic is bug-free.
- Implement comprehensive testing strategies, including unit, integration, and end-to-end testing.
- Set up and maintain continuous monitoring using Datadog dashboards and Kibana logs to identify and resolve production issues promptly.
- Ensure system reliability, performance, and scalability through proactive monitoring and optimization.
- Ensure that all business and design objectives are met, aligning development efforts with stakeholder expectations and project goals.
- Maintain comprehensive technical documentation for APIs, database schemas, and infrastructure components.
- Provide training and support to team members, fostering professional development and technical expertise.
- Stay updated with the latest industry trends and technologies, encouraging the adoption of innovative solutions to enhance the platform.
- Continuously seek opportunities for process improvement and efficiency gains within the development lifecycle.

Project Title: **EdTech Platform, IN**
Role: **Project Lead**
Description:
- An e-learning cum Coding Platform for learners in form of a Mobile and Web Application. A coding platform for everyone for most common programming techniques and Video Tutorials. Built up Interactive UI with **ReactJS** Framework and microservice based backend with Python FastAPI and docker containers for scalability.
  Responsibilities:
- Lead the development of the backend using Python **Django-DRF**, **FastAPI** and **Docker** for microservices.
- Oversee the creation and maintenance of the interactive UI using **ReactJS**.
- Ensure seamless integration with PostgreSQL databases.
- Define project scope, goals, and deliverables in collaboration with stakeholders.

- Plan and coordinate project activities, managing tasks and timelines.
- Foster a collaborative and productive team environment, promoting open communication and knowledge sharing.
- Conduct regular code reviews to maintain high code quality and adherence to best practices.
- Implement comprehensive testing strategies to ensure the platform is bug-free.
- Optimize application performance and ensure scalability.
- Coordinate with cross-functional teams to ensure alignment with business and technical objectives.
- Maintain comprehensive technical documentation for all developed components.
- Provide mentorship and support to team members, fostering professional growth and technical expertise.
- Stay updated with industry trends and technologies, promoting the adoption of innovative solutions.
- Continuously seek opportunities for process improvement and efficiency gains within the development lifecycle.

Project Title: **Automation Ops with no-code Platform, UK**
Role: **Project Lead**
Description:
- A no-code UI platform built using microservice architecture. The goal was to save developer's time using automation ops and provide them flow-chart like tool to develop their infrastructure or any trigger level stuff which can leveraging scripts from basic to cloud level operations by giving simple params to it.

Responsibilities:
- Lead the development team for both front-end and back-end components.
- Oversee the development of the application using Flask and **ReactJS**.
- Design and develop the entire system workflow.
- Develop and integrate automation solutions to enhance platform capabilities.
- Foster a collaborative and productive team environment, promoting open communication and knowledge sharing.
- Conduct regular code reviews to ensure high code quality and adherence to best practices.
- Coordinate with cross-functional teams to ensure alignment with business and technical objectives.
- Maintain comprehensive technical documentation for all developed components.
- Provide mentorship and support to team members, fostering professional growth and technical expertise.
- Stay updated with industry trends and technologies, promoting the adoption of innovative solutions.

Project Title: **Workflow Application for Logistics Employees Management, UK**
Role: **Project Lead**
Description:
- An application to manage all employees within a logistic company. The multiple facets include HR Management, Time and Attendance Tracking, Payroll Processing, Performance Management, Self-services, Recruitment and Onboarding, etc.

Responsibilities:
- Lead the development team for both front-end and back-end components.
- Oversee the development of a **Django**-based web application using Jinja templating & **ReactJS** UI, PostgreSQL & Redis.
- Develop and integrate automation solutions to enhance platform capabilities.
- Foster a collaborative and productive team environment, promoting open communication and knowledge sharing.
- Conduct regular code reviews to ensure high code quality and adherence to best practices.
- Coordinate with cross-functional teams to ensure alignment with business and technical objectives.
- Maintain comprehensive technical documentation for all developed components.

- Provide mentorship and support to team members, fostering professional growth and technical expertise.
- Stay updated with industry trends and technologies, promoting the adoption of innovative solutions.
- Continuously seek opportunities for process improvement and efficiency gains within the development lifecycle.

Project Title: **Finance Management App, US**
Role: **Senior Python Developer**
Description:
- A fintech application for Mobile to make citizens manage their financial stuff like banking, loans, insurance, and many more.

Responsibilities:
- Develop RESTful APIs using **Python** Azure Functions with Cosmos DB integrations.
- Ensure the business code is bug-free and meets high-quality standards.
- Ensure that all business and design objectives are met.
- Conduct regular code reviews to maintain code quality.
- Collaborate with cross-functional teams to align development efforts with business goals.
- Maintain comprehensive technical documentation for developed APIs.
- Stay updated with industry trends and best practices in Python development.
- Provide mentorship and support to junior developers, fostering their professional growth.
- Continuously seek opportunities for process improvement and efficiency within the development lifecycle.

Project Title: **Influencers Platform, UK**
Role: **Senior Python Developer**
Description:
- A simple Web UI Application for engaging influencers.

Responsibilities:
- Develop RESTful APIs using **Flask** with PostgreSQL database integration.
- Create and maintain the user interface using **React JS**.
- Ensure that business code is bug-free and meets high-quality standards.
- Ensure that all business and design objectives are met.
- Conduct regular code reviews to maintain code quality.
- Collaborate with cross-functional teams to align development efforts with business goals.
- Maintain comprehensive technical documentation for developed components.
- Stay updated with industry trends and best practices in Python development.
- Provide mentorship and support to junior developers, fostering their professional growth.
- Continuously seek opportunities for process improvement and efficiency within the development lifecycle.

Project Title: **Online Fitness Training, IN**
Role: **Senior Application Developer**
Description:
- A web application for Gymnasium and fitness center. The goal was to provide online training and coaching to customers and maintain their plans.

Responsibilities:
- Develop web application using **Django (Admin)**/Flask (Templating) with PostgreSQL database integration.
- Create and maintain the UI using Jinja templating in Flask with HTML/CSS/JS.
- Ensure that business code is bug-free and meets high-quality standards.
- Ensure that all business and design objectives are met.
- Conduct regular code reviews to maintain code quality.

- Collaborate with cross-functional teams to align development efforts with business goals.
- Maintain comprehensive technical documentation for developed components.
- Stay updated with industry trends and best practices in web development.
- Provide mentorship and support to junior developers, fostering their professional growth.
- Continuously seek opportunities for process improvement and efficiency within the development lifecycle.

Project Title: **NLP Modelling for Field Intelligence, UK**
Role: **Senior Python Developer**
Description:
- A web application for Farm/Field Intelligence and guide farmers for what suits them best. The goal was to provide such a platform where the users can query by giving simple prompts to know about pesticides, crops and many more.

Responsibilities:
- Develop RESTful APIs using **Flask** with Snowflake and RDS database integrations.
- Implement NLP modeling with prompt engineering to enable user queries.
- Create and maintain the UI using ReactJS and TypeScript.
- Ensure that the business code is bug-free and meets high-quality standards.
- Ensure that all business and design objectives are met.
- Conduct regular code reviews to maintain code quality.
- Collaborate with cross-functional teams to align development efforts with business goals.
- Maintain comprehensive technical documentation for developed components.
- Stay updated with industry trends and best practices in Python and NLP development.
- Provide mentorship and support to junior developers, fostering their professional growth.
- Continuously seek opportunities for process improvement and efficiency within the development lifecycle.

Project Title: **ML Models, IN**
Role: **Senior Python Developer**
Description:
- It was a requirement of multiple ML models based on given datasets by multiple clients.

Responsibilities:
- Develop and deploy AI-based systems, including NLP and computer vision technologies.
- Implement and maintain machine learning models for various applications, including:
  - Smart Tutor Chatbot
  - Tourism Package Prediction for targeted audiences
  - Stock Market Strategy Planner
  - Computer Vision-based Vehicle Parking System Assistant with Automatic Vehicle Registration
  - Body Movement Identification using Artificial Neural Networks
  - Bank Customer Segmentation
  - Used-Car Price Prediction Models
- Conduct data analysis and visualization for big data problems using Hadoop and Hortonworks.
- Develop Python scripts for machine learning/deep learning models.
- Perform real-time car auction data scraping for analytical and prediction modeling.
- Ensure that all business and design objectives are met.
- Conduct regular code reviews to maintain code quality.
- Collaborate with cross-functional teams to align development efforts with business goals.
- Maintain comprehensive technical documentation for developed components.

Project Title: **E-classified App for Moto Retails, IN**
Role: **Senior Application Developer**
Description:

- A mobile application platform for retail the moto-parts.

Responsibilities:

- Building APIs using Python – Flask, Database with Postgres
- Creating Mobile UI with **Flutter**
- Ensure that business code is bug free.
- Ensured that all business and design objectives were met.

**TECHFLEETERS INFOTECH**                                                    **August 2014 to December 2017**

Project Title: **Autonomous Bottle Filling and Packaging Channel, IN**
Role: **IoT Application Engineer**
Description:

- A system designed to automate the process of filling and packaging bottles without human intervention, improving efficiency and reducing errors.

Responsibilities:

- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **3D Scanning Robotic Machine, IN**
Role: **IoT Application Engineer**
Description:

- A robotic machine equipped with 3D scanning technology, capable of scanning and digitizing objects for various applications such as manufacturing, prototyping, and quality control.

Responsibilities:

- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **Real-Time Temperature Monitor & Alert, IN**
Role: **IoT Application Engineer**
Description:

- A system that continuously monitors temperature in real-time and sends alerts in case of abnormal temperature fluctuations, ensuring environmental safety and preventing damage to sensitive materials.

Responsibilities:

- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **Gas Valve Controller & Monitoring System, IN**
Role: **IoT Application Engineer**
Description:
- A system designed to control and monitor gas valves remotely, providing enhanced safety and control over gas supply in industrial and residential settings.

Responsibilities:
- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **Vision Based Smart Virtual Wall Switch (Application), IN**
Role: **IoT Application Engineer**
Description:
- An application utilizing computer vision technology to enable smart virtual wall switches, allowing users to control lights and electrical appliances with gestures or voice commands.

Responsibilities:
- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **Heat Exchanger Model for Conservation of Energy in Indoor Farming using PID Controller, IN**
Role: **IoT Application Engineer**
Description:
- A research project focused on developing a heat exchanger model integrated with a PID controller to optimize energy conservation in indoor farming environments, improving efficiency and reducing energy costs.

Responsibilities:
- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **IoT Based Smart Health Care Monitoring System for Remote Places, IN**
Role: **IoT Application Engineer**
Description:
- A hardware-level system utilizing IoT technology to monitor health parameters remotely in remote areas, enabling timely medical intervention and improving healthcare access.

Responsibilities:
- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **Automation System for Domestic Appliances using IoT, IN**

Role: **IoT Application Engineer**

Description:

- An integrated system incorporating hardware, application, and network-level components to automate domestic appliances using IoT technology, enhancing convenience and energy efficiency.

Responsibilities:

- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **Gesture Controlled Robotic Arm, IN**

Role: **IoT Application Engineer**

Description:

- A robotic arm controlled by gestures, enabling intuitive and precise manipulation of objects in industrial and research applications.

Responsibilities:

- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.

Project Title: **Robotic Chair, IN**

Role: **IoT Application Engineer**

Description:

- An application-hardware level system designed to transform a conventional chair into a robotic chair, offering enhanced mobility and functionality for users with mobility impairments.

Responsibilities:

- Building effective and scalable solution based on requirements.
- System Design & Development of Entire Workflow
- Development of Integrations for Automation
- Ensure that business code is bug free and all business and design objectives were met.