Shubham Patidar

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SUMMARY

AI/ML Full Stack Developer with **3+ years** of hands-on experience in GenAI, large language models (LLMs), and backend microservices architecture. Demonstrated expertise in developing scalable solutions using Python, Flask API, LangChain, and Retrieval-Augmented Generation (RAG). Known for implementing the factory design pattern and Airflow for optimized data processing and API efficiency. Proven track record of enhancing model performance, boosting data accuracy, and strengthening client security through a metadata-driven approach.

SKILLS

Technical Proficiency: Python, DevOps, Flask, Rest API, Micro-services, MySQL, LangChain, RAG (Retrieval-Augmented Generation), Agents, LLMOps, CNN, OpenCV, Factory Patterns, OOP, Prompting, Model Development, Artificial Intelligence, Machine Learning, Agile Methodology, Data Analysis and Visualization, Natural Language Processing, Generative AI, TensorFlow, Scikit-Learn, Keras, Pytorch, Generative Adversarial Networks (GANs), Model Optimization, Pandas, Numpy, Matplotlib, Few Shot, chain of thought, Transformers, MLOps.
Tools: Linux, Kubernetes, Docker, AWS, Azure, GCP, Git, Vertex AI, Azure AI Studio, OpenAI, Vertex AI, Bigquery (Vector DB), Hugging Face.
Certifications: Microsoft certified developer associate (AZ-204), AZ-900, Oracle certified developer associate (OCI) , IEEE certificate of publication.

EXPERIENCE

Accenture **Jun 2023 - Present**
AI/ML Full Stack Developer *Indore, India*

- Led the back-end team, architected a solution for on-the-fly visualization using **Agentic workflow**, reducing data analysis costs by 10%.
- Engineered an AI chatbot using **LangChain and RAG**, reducing SQL generation time by 40%.
- Built and optimized **DevOps** pipelines for **GCP and Azure**, which increased productivity by 15%
- Adopted a metadata-driven approach, placing **responsible AI** architecture at the center of development resulting in a 80% improvement in client data protection and operational efficiency.
- Created multiple helper functions Using **Factory Pattern Design**, enhancing data quality and accuracy by 50% and reducing overall API costs for LLM by 30%.
- Crafted a **micro-service** for personalized security questionnaires and used **LangChain and RAG** to analyze responses, generate reports, and suggest remediation steps using RBI guidelines, saving 80% of client time.

Accenture **Jan 2022 - May 2023**
Data Engineering Associate *Pune, India*

- Conceived and delivered features for Accenture's internal tools in an **Azure DevOps and Agile** environment, enhancing delivery time by 20%.
- Introduced **Factory Pattern** design in micro-services, improving performance by 35%.
- Developed **Micro-services** for auto-generating and validating test scripts using metadata extraction, potentially saving 0.5 million dollars in resource costs.
- Leveraged **Docker** and **Linux** for continuous deployment on **AWS and Azure**, reducing deployment time by 25%.

EDUCATION

Medicaps University **Mar 2017 - June 2021**
Bachelor of Technology in Electronics and Communication 7.17 *Indore, India*
Courses: *Database Management, Data Structures and Algorithms, Data Science, Software Engineering, Machine Learning, Neural Networks, Object Oriented Programming, Statistics, Probability Distributions.*

Gayatri Shiksha Niketan High School **Mar 2015 - June 2016**
XII 7.86 *Khargone, India*
Courses: *Physics, Chemistry, Mathematics.*

ACADEMIC PROJECTS

Drowsiness Detection System | *Python, CNN, OpenCV, Postgres* **Nov 2021 - Jan 2022**

- Formulated a real-time drowsiness detection system with **CNN and OpenCV**, achieving 95% accuracy in classifying drowsy and non-drowsy states.
- Implemented a robust alert mechanism with visual and auditory notifications, including low-frequency sound, resulting in a 10-15% user awareness and responsiveness.

Facial Attendance System | *Python, Google Cloud Console, OpenCV, Postgres* **Jan 2020 - Feb 2020**

- Designed a facial recognition attendance system with **OpenCV**, achieving 70% improvement in real-time identification and logging accuracy.
- Established a data management solution using **Postgres**, improving retrieval speed of attendance records by 5-10%.

RESEARCH PUBLICATIONS

Drowsiness detection from real-time video capturing using CNN **Mar 2021 - July 2021**

IEEE publication *ICCCNT*

- Presented a paper at ICCNT, IIT Kharagpur, on developing a **CNN-based model** for analyzing facial and eye movement to detect driver drowsiness.

NOTABLE ACHIEVEMENTS

- Featured on Accenture's **Wall of Fame** for June for integrating scalability features into each microservice, increasing overall efficiency and flexibility by 20%.
- Earned the TechExpress **Fast Track Award** for completing the Tech Expressway program at Accenture, recognized as a top 10% performer for exceptional achievement and accelerated learning.