

# SHIVAM PAL

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## EXPERIENCE

American Express  
Software Development Engineer

Phoenix, AZ, USA  
09/2024 - Present

- Crafted a new API to resolve data-recall mismatches, improving data streamlining by 43%.
- Worked on LPM Modernization, implementing batch processing for data transfer to S3, enhancing pipeline performance by 31%.
- Migrated OpenTelemetry logs from Splunk to ELF and constructed visualizations, enhancing monitoring efficiency by 25.7%.
- Automated data encoding, boosting server uptime by 28% and cutting operational costs by \$600K.

Arizona State University with Integrated Travel  
Team Lead, Machine Learning Analytics

Tempe, AZ, USA  
07/2024 - 09/2024

- Piloted ML-driven Net-Zero transit project using SQL and R, achieving a 19% increase in efficacy through predictive analytics.
- Supervised multi-source ETL pipelines, improving data accuracy by 22% and consolidating unstructured data for ML model training.
- Built a scalable data warehouse on Redshift, optimizing large dataset storage and cutting operational costs by 15%.

Adani Edu. with MCMIT  
Device Usability Researcher

CG, India  
01/2022 - 07/2022

- Led development on an IoT platform with Node.js, improving engagement by 23% through analytics, UX, and WordPress integration.
- Instilled Agile processes across teams, cutting project delivery timelines by 32% and increasing project agility.
- Implemented Google Cloud Platform (GCP) analytics, raising participant feedback rates by 25% to refine and enhance usability.

Cognizant  
Programmer Analyst

TN, India  
01/2021 - 12/2021

- Streamlined data processing pipelines using Kafka and Spark, reducing latency by 12% and enabling real-time data analytics.
- Leveraged Kubernetes on Azure to improve cloud scalability and deployment efficiency by 18%, boosting cloud resource utilization.
- Spearheaded a cross-functional team on a Healthcare Project, enhancing integration efficiency by 27% through Spring Boot integration.

## SKILLS

Development Tools

Python, Java, SQL, C++, Scala, R, Django, Flask, Spring Boot, TensorFlow, Keras, PyTorch, MLflow

Data & Cloud

AWS, GCP, Azure, Docker, Kubernetes, Terraform, Jenkins, CI/CD, BigQuery, Databricks, Hadoop, Spark

Certifications

CompTIA 2024 Security+, AWS 2024 Solutions Architect Associate, Oracle 2023 FA, IBM DSP

## PROJECTS

Opticomp

07/2024 - 09/2024

- Devised an optimizer enhancing CPU/GPU performance, automating analysis, boosting efficiency by 26%.
- Designed real-time usage displays with Matplotlib and Tkinter, visualizing top 15 processes, reducing bottlenecks by 30%.
- Deployed XGBoost-based ML algorithms for smart app removal, improving efficiency and reducing usage by 13%.

Prompty

01/2024 - 02/2024

- Developed a conversational AI framework with NLP and ML techniques, improving prompt precision and response relevance by 40%.
- Engineered versatile conversational flows for varied domains, refining AI-LLM interactions and optimizing response effectiveness.

Tryspec: Virtual Try-On System

08/2023 - 11/2023

- Created an AR-based virtual try-on system using OpenCV and MediaPipe, enabling real-time accessory visualization.
- Integrated dynamic facial landmark detection and adaptive sizing to personalize accessory fitting.
- Administered interactive product toggling, allowing users to explore styles instantly, increasing engagement by 10%.

## EDUCATION

M.S., Information Technology (Project Management)

08/2022 - 05/2024

Ira A. Fulton Schools of Engineering, Arizona State University, AZ, USA

GPA: 4.00

Relevant Coursework: Info. Systems Development, Big Data Analysis, ML/DL, Cloud & Computer Architecture, IoT

B.Tech., Electronics and Communication Engineering

08/2017 - 05/2021

SRM Institute of Science and Technology, TN, India

GPA: 3.02

Relevant Coursework: C Programming, Virtual Reality, VLSI Design, Network Protocols, Cryptography