

SHIVAM PAL

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EXPERIENCE

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| American Express (Eviden) Software Development Engineer | Phoenix, AZ, USA 09/2024 - Present |
| <ul style="list-style-type: none">• Architected ADA RAG platform, accelerating user-story generation by 38% for 60+ internal teams.• Engineered async vector retrieval with Redis caching, trimming semantic query latency by 27% globally.• Orchestrated one-click OpenShift deployments for PG-Admin, onboarding 34 brokers and expediting MLOps adoption.• Transitioned telemetry from Splunk to ELK, heightening drift-detection responsiveness by 24% and reducing license spend \$96K.• Implemented cloud-init provisioning across AWS, GCP, on-prem, shrinking setup effort 52% and saving \$92K annually.• Fortified security posture automating KMS rotation and Vault certificates, decreasing key-risk exposure by 33%.• Delivered merchant-offers API fixes, improving recall accuracy 43% and eliminating anomalies across four services cost by \$600k. | |
| Integrated Travel (Arizona State University) Team Lead, Machine Learning Analytics | Tempe, AZ, USA 07/2024 - 09/2024 |
| <ul style="list-style-type: none">• Directed Net-Zero transit analytics using SQL and R, improving predictive accuracy by 17% for city KPIs.• Consolidated multi-source pipelines on AWS Glue, lifting data quality 21% and reducing reconciliation tickets by 46%.• Streamlined Airflow–Redshift–MLflow orchestration with CI/CD, shortening model training cycles 15% and hardening lineage. | |
| Adani Edu. (MCMIT) Device Usability Researcher | Chhattisgarh, India 01/2022 - 07/2022 |
| <ul style="list-style-type: none">• Constructed IoT learning platform on GCP, raising student engagement 23% using analytics-driven content personalisation.• Incorporated Crossplane-based IAM telemetry, improving feedback participation 25% and enabling GDPR-aligned consent reporting. | |
| Credit Suisse (Cognizant) Programmer Analyst | TN, India 07/2021 - 12/2021 |
| <ul style="list-style-type: none">• Optimized Kafka–Spark financial pipelines, trimming batch latency 12% and scaling throughput for 7+ million events.• Expanded Kubernetes deployments, improving microservice scalability 18% and cutting over-provisioned compute \$110K annually.• Piloted Selenium–Spring Boot regression harness, increasing release reliability 32% and reducing hotfix churn 44%.• Developed HIPAA-compliant APIs for insurer workflows, accelerating Medicare data processing 20% while strengthening auditability. | |

SKILLS

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| Development Tools | Python, Java, SQL, Shell, C++, JavaScript, Scala, PHP, R, React, Angular, Django, Flask, Spring, Node.js, Go. |
| Data & Cloud | CI/CD, Git, Azure, Docker, Kibana, Terraform, Jenkins, Postman, BigQuery, Databricks, Hadoop, Tensor, Keras, GraphQL. |
| Certifications | CompTIA 2024 Security+, AWS 2024 Solutions Architect Associate, Oracle 2023 FA, IBM DSP. |

PROJECTS

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| Rayz: AI-Powered X-ray Analysis | 12/2024 - 02/2025 |
| <ul style="list-style-type: none">• Built EfficientNet_B0-based chest X-ray classifier achieving 93.44% AUROC on NIH and NLM CXR datasets.• Integrated BERT-based label extractor with RAG pipeline, boosting annotation precision by 36% and halving review time.• Optimized GPU inference using Torch-TensorRT, mixed precision, and CUDA streams, reducing per-study latency 41%. | |
| Opticomp: Computational Optimization Toolkit | 05/2024 - 08/2024 |
| <ul style="list-style-type: none">• Designed optimization engine using linear programming, genetic algorithms, and simulated annealing to cut resource costs by 27%.• Deployed Python–PuLP backend with dynamic constraint handling, scaling to 50K+ variable scenarios in under 3s. | |
| Sustaining Balance: Global Food Security NLP Pipeline | 01/2024 - 05/2024 |
| <ul style="list-style-type: none">• Processed 53K+ data points from FAO, World Bank, and Kaggle, integrating ESG sentiment with geospatial analysis.• Developed Hugging Face Transformer-based sentiment classifier, improving policy insight correlation by 44%.• Built Tableau dashboards and GeoPandas maps, enabling interactive exploration of sustainability metrics for stakeholders. | |

EDUCATION

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| 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 | |