VIKEN SHAUMITRA PARIKH

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PROFESSIONAL SUMMARY

Software Engineer with 5+ years at Microsoft and PayPal designing and operating high-scale distributed systems, intelligent security tools, and data-driven payment infrastructure with strong ML/AI expertise. Delivered production systems serving 25K+ developers and processing $2B+ daily volume, owning architecture, implementation, and experimentation to drive reliability and growth.

PROFESSIONAL EXPERIENCE

Software Engineer 2 | Microsoft, Seattle & Vancouver **June 2022 – Sep 2025**

- Built ML-driven security analysis tooling for Defender for DevOps, scanning 50K+ Azure DevOps/GitHub repositories to detect code, secret, dependency, and IaC vulnerabilities using intelligent pattern matching, reducing detection time ~40% and increasing remediation throughput ~60%.
- Designed and shipped predictive security dashboards using React and Knockout with ML-backed insights, delivering unified code-to-cloud visibility and driving ~30% higher feature adoption among 25K+ developers.
- Developed feature engineering pipelines and A/B testing frameworks for Azure Cloud Security, leveraging data-driven recommendations to streamline onboarding and cut setup time ~50%.

Software Engineer 2 | PayPal, San Jose **June 2020 – May 2022**

- Architected and implemented an intelligent payment authorization system using feature engineering, controlled experiments, and ML-guided policies to optimize routing and retry logic, improving transaction efficiency and increasing auth success by ~2–3% on high-volume global card traffic.
- Built high-throughput tokenization SDKs and APIs using Java (Spring Boot), Couchbase, Docker, and Kafka, supporting 50K+ QPS and ~$2B daily volume with 99.99% uptime while integrating ML-based fraud detection and experimentation.
- Engineered secure tokenization platform with intelligent lifecycle management, improving reliability and flexibility for stored payment instruments across multiple PayPal flows while maintaining PCI-compliant patterns.
- Mentored 4 junior engineers on microservices, observability, and experimentation-driven development, establishing best practices for production systems and data-driven architecture.

Software Engineer | Decision Theater Network, Arizona **Dec 2018 – May 2020**

- Developed ML-assisted visualization and simulation platform (Python, JavaScript) for 50+ research projects, reducing analysis cycles by ~45% and enabling faster insight generation.

TECHNICAL SKILLS

Languages & Backend: Python, Java, C#, Ruby, SQL, JavaScript/TypeScript, Scala, R, MATLAB, Spring Boot, .NET Core, Flask, Django, Rails, REST/gRPC, Microservices, Git
Cloud & Data: Azure, AWS, GCP, Docker, Kubernetes, Terraform, CI/CD, PostgreSQL, MySQL, MongoDB, Couchbase, Cassandra, Redis, Kafka, Hadoop, Apache Spark
ML, NLP & LLMs: TensorFlow, PyTorch, Keras, scikit-learn, XGBoost, Pandas, NumPy, MLflow, Databricks, Feature Engineering, A/B Testing, NLTK, spaCy, Hugging Face (BERT, GPT, T5), Prompt Engineering, RAG, LLM Agents, Reinforcement Learning
Visualization & Analytics: Tableau, D3.js, Matplotlib

EDUCATION

Master of Computer Science (Data Science and AI) – Arizona State University, Tempe, AZ **Aug 2018 – May 2020**
Coursework: Statistical Machine Learning, Artificial Intelligence, Multi-Robot Systems, Semantic Web Mining, Cloud Computing

Bachelor of Technology, Computer Engineering – Mumbai University, India **Aug 2014 – May 2018**
Coursework: Machine Learning, Neural Networks, Fuzzy Logic, AI, Data Mining, Computer Simulation Modelling

PROJECTS AND TECHNICAL PUBLICATIONS

Travigate - A Personalized Tourist Guide for Recommendation and Recognition (github/Travigate) - Led team of 4 to build a recommendation engine using collaborative filtering, CNN-based image recognition, and sentiment analysis, achieving 92% user satisfaction and IEEE publication (100+ citations); deployed on AWS (EC2, S3) serving 5K+ requests/day.
AWS Auto-Scaling Object Detection (github/AWS-AutoScaling-Object-Detection) - Built production YOLO object detection system processing 10K+ images/day with Flask/Spring Boot on AWS EC2 auto-scaling, achieving ~95% accuracy, sub-2s latency, and 99.9% uptime.
Q-Learning IP Routing for Financial Networks (github/Qlearning-ip-routing) - Applied reinforcement learning to optimize routing in financial networks, reducing time while maintaining security; designed simulation and validated convergence.
Multiagent Path Planning (github/honey-bee-mating-optimization) - Optimized AI algorithm for multi-agent path planning using bee mating optimization heuristics and distributed algorithms in Python.
Time Series Forecasting for Market Analysis - Built ARIMA/LSTM models for financial market prediction, with backtesting and visualization for model performance.