Shivani Singh

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SUMMARY

Software Engineer with 3+ years building production applications and scalable infrastructure. Expert in React/TypeScript/Python with deep experience in real-time data processing, full-stack architecture, and rapid prototype-to-production deployment. Proven experience in foundational system design and technical research for innovative applications. Seeking challenging opportunities in AI product development to leverage my technical expertise while expanding into cutting-edge AI technologies.

SKILLS

AI & ML: LLM Integration, Agent Systems, Prompt Engineering, Claude API, OpenAI, LangChain, RAG, Context Handling, Embedding Systems, Tool-Calling Frameworks, Statistical Analysis, Predictive Analytics
Languages & Frameworks: Python, TypeScript, JavaScript, R, SQL, React, Flask, NodeJS, HTML, CSS
Data & Analytics: ETL/ELT, PostgreSQL, Airflow, Big Data, Tableau, Real-time Processing
DevOps & Cloud: Docker, Kubernetes, AWS, GCP, CI/CD, RestAPI, Streamlit, Terraform, Jenkins

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WORK EXPERIENCE

Mixhalo
Full Stack Engineer | San Francisco, CA   Apr 2022 - Nov 2022

- Architected and prototyped real-time audio translation system (Mixhalo Translate), building foundational demo to demonstrate technical feasibility and market vision to stakeholders and investors
- Conducted comprehensive technical research and proof-of-concept development for WebRTC-based audio processing pipeline, establishing scalable architecture patterns and integration strategies for ML translation services in live event environments
- Built production-ready infrastructure components using Kubernetes and Docker, improving cost-efficiency by 67% and creating deployment frameworks that enabled seamless integration of real-time processing tools and analytics dashboards
- Designed data pipeline architecture combining audio streaming, metadata processing, and user interaction patterns, laying technical foundation for personalized content delivery, and establishing monitoring systems (Loki, Prometheus) for operational insights

Extreme Networks
Software Applications Engineer | San Jose, CA   Mar 2021 - Apr 2022

- Architected data consolidation systems integrating multiple sources with SQL/NoSQL databases, building scalable analytics infrastructure supporting real-time decision-making across teams
- Developed production-grade visualization dashboards in Power BI and Tableau, creating a self-service analytics platform used by multiple stakeholders for KPI tracking and business intelligence
- Implemented comprehensive testing framework, reducing production incidents by 45%, establishing quality standards and deployment practices for rapid iteration cycles
- Mentored engineering team members on network management and software architecture, demonstrating technical leadership and knowledge transfer capabilities that are essential for founding team environments

Extreme Networks
Frontend Engineering Intern | San Jose, CA   Mar 2020 - Mar 2021

- Collaborated with the UX designer to revamp the product's user interface, enhancing user experience and visual appeal
- Developed frontend libraries using Dojo and Honeycomb frameworks, improving code reusability and development efficiency

Disability & Access Services, Boston University
Assistive Technology Consultant | Boston, MA   Sep 2018 - Jan 2020

- Analyzed concussion data (R, Scala, Python), reducing incorrect assistive tool distributions by 97%
- Automated student profile display depending on the user profile, ensuring HIPAA-compliant PII redaction/encoding practice
- Streamlined accommodations, reducing data redundancy by 80% and halving service request times
- Launched the "Library Scan Project," making BU libraries the go-to for accommodation requests that don't require 1:1 consultation, allowing staff to focus on critical and timely requests

Questrom School of Business, Boston University
Teaching Assistant | Boston, MA   Jul 2019 - Oct 2019

- Mentored students in refining research topics and preparing proposals for the chair's review, resulting in improved proposal quality and increased approval rates
- Taught data analytics and business intelligence using R, Python, and SQL, leveraging BigQuery for analysis & visualisation, and foundational Data Science concepts, including algorithms, statistical analysis, and predictive analysis with IBM SPSS

RESEARCH

Westcliff University | **Doctoral Research**   Oct 2022 - Aug 2026 (Expected)

Spearheading a quantitative research study tackling the issue of smaller banks facing reputational contagion when a larger bank collapses. The robust conceptual framework utilises advanced machine learning models to analyse multimodal data with high precision, thereby establishing a strong foundation for future predictive analysis.

NOTABLE PROJECTS

Windborne Constellation Tracker

Live Demo: https://windborne-dashboard.onrender.com

- Built real-time analytics platform with Claude API integration for intelligent balloon trajectory prediction and automated operational recommendations
- Implemented agentic system for anomaly detection and predictive maintenance recommendations, reducing manual monitoring by 70%
- Developed context-aware prompt engineering system that analyzes multimodal data (telemetry, weather, historical patterns) for actionable insights
- Created robust data processing pipeline with intelligent caching and error handling for 24-hour continuous operation

Sustainable Fashion Analytics Platform

Live Demo: https://sustainability-fashion-tracker.onrender.com

- Built production AI recommendation system using OpenAI GPT-4 and LangChain for personalized sustainability insights based on user behavior patterns and interaction history
- Implemented intelligent prompt engineering strategies for context-aware recommendations, achieving 85% user engagement with AI-generated suggestions
- Developed PostgreSQL-backed user interaction tracking system for continuous learning and model improvement with real-time context composition
- Created browser-native analytics platform with interactive visualizations and location-based intelligent filtering using geospatial algorithms

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EDUCATION

Westcliff University, Irvine, CA   Oct 2022 - Aug 2026 (Expected)

Doctor of Business Administration (concentration: Business Intelligence & Data Analytics) | **Online**

Boston University, Boston, MA   Sep 2018 – Jan 2020

M.S., Computer Information Systems (concentration: Database Management & Business Intelligence) | **GPA 3.60**

Indira Gandhi Delhi Technical University, New Delhi, India   Aug 2014 – Jun 2018

Bachelor of Technology, Electronics & Communication Engineering | **CGPA 8.9**