

Shivani Singh

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SUMMARY

Software Engineer with over 3 years of experience transitioning into data roles, focusing on optimising data pipelines and generating data-driven insights. Skilled in Python, SQL, and cloud platforms, with extensive experience in improving system efficiency and accuracy. Demonstrated success in designing scalable infrastructures and reducing costs.

Currently in California, USA & authorised to work in the US. Eligible for UK Skilled Worker Visa Sponsorship, seeking UK sponsorship to leverage analytical skills and implement advanced data optimisation strategies.

SKILLS

AI & ML: LLM, Generative AI, Claude API, OpenAI, LangChain, RAG, Statistical Analysis, ML/AI, Predictive Analytics

Data & Analytics: Big Data, ETL/ELT, Excel, PostgreSQL, Airflow, Superset, Synapse, Tableau

Languages & Frameworks: Python, R, MATLAB, SQL, JavaScript, Flask, HTML, CSS, React, Angular, NodeJS

DevOps & Cloud: Docker, Kubernetes, Terraform, Ansible, AWS, GCP, Streamlit, CI/CD, RestAPI, Linux, Jenkins, GitHub

Research: Research Design, Methodology, Data Collection & Analysis, Literature Review, Technical Writing

WORK EXPERIENCE

Mixhalo

Full Stack Engineer | San Francisco, California, USA

Apr 2022 - Nov 2022

- Deployed Kubernetes clusters, improving cost-efficiency by 67% and enabling integration with third-party tools
- Engineered and optimised an audio data pipeline (Rsyslog, Ulog, openWRT) for real-time data ingestion and processing, enabling multiple teams to gain insights via dashboards (Loki, Prometheus)
- Managed and secured infrastructure as code using Docker, Terraform, and Ansible, reducing deployment time and enhancing system reliability
- Improved data accuracy by 80% by analysing cross-system reports and resolving data discrepancies

Extreme Networks

Software Applications Engineer | San Jose, California, USA

Mar 2021 - Apr 2022

- Developed SQL and NoSQL queries to consolidate data from different sources, improving business insights and decision-making
- Created data visualisation dashboards in Power BI and Tableau, which multiple stakeholders use to track KPIs
- Developed a broad suite of unit and integration tests, resulting in a 45% reduction in bug reports/production incidents
- Mentored interns, helping them develop skills in network management and preparing them for full-time software engineering roles

Extreme Networks

Frontend Engineering Intern | San Jose, California, USA

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, Massachusetts, USA

Sep 2018 - Jan 2020

- Analysed 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, Massachusetts, USA

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
- Collaborated with the professor to refine coursework, improving the balance between lectures and hands-on labs, which enhanced student engagement and understanding

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 comprehensive real-time analytics platform with AI-powered balloon trajectory prediction and anomaly detection
- Integrated Claude API for intelligent operational insights, deployment recommendations, and automated analysis
- Implemented multi-page web application with interactive visualisations, weather integration, and performance analytics
- Developed robust data processing pipeline handling 24 hours of constellation data with error handling and caching

Sustainable Fashion Analytics Platform

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

- Created customer-facing platform with intelligent business discovery, achievement tracking, & personalised AI recommendations using OpenAI & LangChain for sustainability insights
 - Built scalable PostgreSQL database with comprehensive analytics, interactive visualisations, and location-based filtering
 - Implemented advanced data processing with automated insights generation and customisable API key integration
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EDUCATION

Westcliff University, California, USA

Oct 2022 - Aug 2026 (Expected)

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

Boston University, Massachusetts, USA

Sep 2018 – Jan 2020

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