Alisha Mishra

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EDUCATION

University of California, Irvine   **Irvine, California**
B.S in Data Science   *Expected Graduation, June 2027*
Relevant Coursework: Probability & Statistics, Linear Regression, Data Visualization, Data Structures & Algorithms, Design & Analysis of Algorithms

SKILLS

Programming: Python, R, SQL, JavaScript, TypeScript, Git
Statistics & Modeling: Regression, Hypothesis testing, Experimental design, Clustering, Time-series analysis, NLP
Frameworks & Tools: scikit-learn, pandas, numpy, ggplot2, R Markdown, Jupyter, React, Vite, Vercel, REST API, Supabase, PostgreSQL, Tableau

TECHNICAL PROJECTS

Fashion & Cultural Signals Study — Python, SQL, Tableau, NLP, Data Visualization
- Built an end-to-end ML pipeline to collect and analyze 10,000+ social media posts using Python, SQL, and NLP, comparing algorithm-driven vs. nostalgia-driven fashion trends
- Applied unsupervised clustering **(HDBSCAN, K-Means)** on sentence embeddings to extract **50+ semantic style groups**
- Performed time-series analysis and visualized trend diffusion patterns in Tableau, validating against Google Trends

Boba Shop Market Analysis Case Study — Python, scikit-learn, pandas, numpy, scipy, matplotlib
- Designed an **end-to-end statistical analysis pipeline** for **603 shop reviews**, applying clustering + regression to uncover success drivers.
- Optimized models with GridSearchCV to **+18% accuracy**, and delivered insights via **automated dashboards** for market-entry strategy.

College Meal Plan AI— React, Vite, Typescript, OpenAI API, Supabase, REST API, Postgres
- Built AI-augmented user workflows (generate, tweak, plan, shop) that compress meal planning from **30-45 minutes to under 10 minutes** per week
- Deployed an **end-to-end LLM-powered planning system**, orchestrating recipe generation, variation, persistence, and retrieval across a full-stack web application
- Engineered type-safe prompt-to-structure pipelines using **TypeScript interfaces and JSON schema validation**, transforming natural-language AI output into validated recipe objects with **100% successful database integration**
- Designed **RESTful API endpoints** for seamless communication between React frontend and Supabase backend

EXPERIENCE

Women in Cybersecurity, UC Irvine Chapter (WiCyS)   **Irvine, California**
President   *June 2025 – Present*
- Revitalized WiCyS from 5 to **20+ active members**, using data-driven outreach strategies to expand membership and technical engagement.
- Scaled programming from **3 to 9** events per quarter, tracking participation metrics to improve program relevance and attendance.
- Organized **10-member executive board** with clear roles, workflows, and documentation, improving event coordination efficiency by **3x**.
- Delivered hands-on training to 60+ students in OSINT, threat analysis, cloud security, and CTF problem solving

South Dakota State Mechanical Engineering Department   **Remote**
Research Intern   *May 2023 – Jan 2024*
- Identified aerospace material designs with **19%** improved strength-to-weight performance through statistical analysis of 600+ structural simulations in **Python and R**
- Built **reproducible statistical workflows** for replicating simulations with feature engineering + exploratory data analysis and model validation for data-driven material optimization.
- Synthesized insights from **50+ strength test optimization papers** into reproducible strategies, contributing to experiment planning and methodological development for the research team.