SANAYA VAKHARIA

Recommender Systems | Product Analytics | Growth Strategy

sanayavakharia@gmail.com | +1 (619) 951-8431 | linkedin.com/in/sanayavakharia | sanayavakharia.com

EDUCATION

University of California, San Diego *June 2026*

B.S. Mathematics–Computer Science | Minor: Business Economics | *Provost Honors*

Relevant Coursework: Recommender Systems & Web Mining, Machine Learning, Statistical Methods, Algorithms, Experiments in Firms, Game Theory, Business Project Management

PROFESSIONAL EXPERIENCE

Summer Business Analyst — Kearney, New York, NY *Jul 2025 – Sep 2025*

- Analyzed supplier and factory performance in SQL and Excel for a global textile-sourcing client, assessing manufacturing costs, sourcing efficiency, and procurement opportunities.
- Built data-processing automations and dashboards for cost, margin, and operational reporting; helped develop recommendations to improve purchasing processes.
- Presented quantitative findings and cost-reduction opportunities with international consulting teams in client-facing work-streams.

Machine Learning Engineer Intern — CoCreate x SPYKAR, Remote *Jul 2024 – Sep 2024*

- Helped prototype an LLM-powered multimodal product-discovery kiosk integrating conversational AI, dealer purchase history, and personalized SKU recommendations.
- Contributed to collaborative-filtering and XGBoost recommendation experiments; team-reported Recall@10 improved 24% over a popularity-based baseline.
- Supported data processing and ordering automation; the broader engineering team subsequently completed and refined the prototype.

Data Engineering & AI Intern — Seagate Technology, Fremont, CA *May 2024 – Sep 2024*

- Developed experience with Spark, Kafka, and Airflow while contributing to ETL workflow automation on a data engineering team; the initiative reported 40% lower pipeline latency.
- Extended internship with the AI team to support anomaly detection and predictive analytics for storage performance; the broader initiative reported a 23% improvement in failure prediction.
- Prepared Salesforce CRM data and assisted with NLP-based classification for customer segmentation and analytics reporting.

Pro Bono Consultant — Cornerstone Community Consultants | C. Blackburn Jewelers *Spring 2025*

- Visited the client site and held weekly meetings to map custom-jewelry orders, CRM workflows, and operational bottlenecks.
- Evaluated six CRM tools, built sample dashboards, and presented an Airtable order-tracking recommendation alongside social-media and hiring-process proposals.

SELECTED TECHNICAL & ANALYTICS PROJECTS

Context-Aware Restaurant Recommendation & Ranking Engine | *Python, SQL, LightGBM, FAISS, FastAPI*

- Developed a two-stage recommendation pipeline with collaborative filtering, embedding-based candidate retrieval, and learning-to-rank, incorporating cuisine, dining history, location, budget, and occasion.
- Designed cold-start personalization and an interactive discovery interface; evaluated ranking with Recall@10 and NDCG@10 against popularity and collaborative-filtering baselines.

Book Recommendation & Rating Prediction | *Python, Jaccard Similarity, Collaborative Filtering*

- Built popularity- and Jaccard-based read-prediction signals and regularized user/item-bias rating models; produced 20,000 reading-pair and 10,000 rating-pair predictions.

Formula 1 Race Outcome Prediction | *Python, pandas, scikit-learn*

- Combined historical race and weather data to predict finishing positions with linear regression; achieved 2.60 MAE and 0.53 R^2 on a held-out split.

Behavioral Experiment: Gain/Loss Framing & Risk-Taking | *Qualtrics, ANOVA*

- Designed a three-arm randomized study ($n = 141$) and analyzed betting decisions using ANOVA and t-tests; found no statistically significant treatment effect ($p = 0.32$).

LEADERSHIP

Undergraduate Teaching Assistant — Negotiations, UC San Diego *Fall 2025*

- One of two undergraduate TAs alongside MBA student TAs; supported 80–100 students per quarter through discussions, office hours, grading, and negotiation-strategy feedback.

Professional Development Events Chair — CSES, UC San Diego *Oct 2023 – Apr 2024*

- Organized 15+ AI/ML and professional-development events, coordinating workshops, speakers, and student networking.

TECHNICAL SKILLS

Programming: Python, SQL, Java, R, C++, JavaScript

ML & Analytics: scikit-learn, PyTorch, XGBoost, LightGBM, collaborative filtering, learning-to-rank, NLP, A/B testing, hypothesis testing

Data & Tools: pandas, NumPy, Spark, Kafka, Airflow, FastAPI, Git, Tableau, Excel