Ethan Miao

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EDUCATION

MS, **Technology Management** *University of California, Santa Barbara*	Sep 2024 - Jun 2025
BS, **Electronic Information Engineering** *South China Normal University*	Sep 2020 - Jun 2024

WORKING EXPERIENCE

Business Analyst — Apr 2025 - Jun 2025
Eth Tech — Los Angeles, CA

- Participated in a cross-functional project to **improve loan eligibility automation**, focusing on segmenting applicants based on income, credit history, and demographic data to support targeted customer outreach
- Conducted **end-to-end data analysis lifecycle**: defined problem statement, performed EDA, and handled missing values and outliers to ensure data quality and reliability
- Collaborated with senior analysts to perform **univariate and bivariate analysis**, identifying key variables that influence loan approval outcomes
- Communicated findings through **visual dashboards and slide presentations**, helping product and risk management teams tailor offerings to high-potential customer segments
- Improved internal documentation of **model assumptions, customer profiles, and data workflows**, enabling smoother handover and reproducibility for future development

Market Data Analyst — Jan 2025 - Jun 2025
Deckers Outdoor Corporation — Goleta, CA

- Scraped and cleaned ~10K footwear SKUs across Amazon, Flipkart, and Myntra using **Python (BeautifulSoup, pandas, NumPy)**, and automated data pipelines with Selenium to enable scalable analysis
- Developed two interactive **Tableau dashboards** to visualize post-COVID brand-level pricing trends, discounting strategies, and sales fluctuations across metro Indian cities, supporting strategic decision-making
- Defined and **monitored KPIs** such as average discount rate, conversion rate, and CAC in collaboration with marketing and brand teams, enabling real-time **campaign performance tracking**
- Conducted **break-even analysis** on celebrity endorsement campaigns by merging ad spend and sales data, calculating an ROI payback period of 29 weeks
- Built **linear regression models** in Python to estimate regional **price elasticity**, revealing 22% higher demand sensitivity in Tier-2 cities for Nike products through EDA and segmented modeling
- Performed consumer segmentation using **scikit-learn** to **cluster users** by geography, age, and purchase behavior, identifying regional demand patterns and informing localized pricing and youth-focused campaigns

Executive Assistant — Jan 2024 – May 2024
LG Display Co., Ltd — Guangzhou, China

- Provided executive-level analytical support within the **Government Affairs division**, synthesizing competitive intelligence and policy updates across 3 regions and **ensuring accurate documentation** and improving product launch reporting timelines by 30%
- Assisted with **preparation of weekly dashboards and presentations** for leadership, highlighting customer insights, campaign performance, and competitor movements
- Conducted preliminary analysis of display market trends (Excel, Tableau), supporting **data-driven decision-making** on OLED product positioning for Q2–Q4 2024

SELECTED PROJECTS

NFL Sports Betting Analytics Project — Oct 2024 - Dec 2024

- Analyzed historical NFL scores and betting odds to uncover seasonal inefficiencies and inform data-driven wagering strategies.
- Built predictive models (**Logistic Regression, Random Forest, Gradient Boosting**) using engineered game context features (weather, playoff status), achieving 78% accuracy and highlighting key predictive factors like team identity and location.
- Developed a scalable pipeline for real-time model updates with 2025 data, enabling continuous refinement and long-term ROI optimization.

SnapSpace – AI Web Platform for Furniture Discovery — Jan 2025 - Mar 2025

- Contributed to SnapSpace's monetization strategy by designing a hybrid model of premium subscriptions and commission-based revenue.
- Researched competitor pricing and forecasted user conversion rates to support tiered pricing and revenue projections.
- Collaborated on product feature planning, user flow design, and development of business model pitch materials.

SUMMARY OF QUALIFICATIONS

- **Statistics and Machine Learning:** General Linear Model, Model Selection & Regularization (LASSO, Ridge, and Elastic net), Survival Analysis, Structure Equation Modeling, Time Series Analysis
- **Data Intelligence:** Tableau, Power BI, Excel, Data Pipeline, ETL
- **Data Analytics:** SQL (Snowflake, MySQL), R, Python (pandas, NumPy, Matplotlib), Hadoop, Spark
- **Language**: English, Mandarin, Cantonese