Tyler Chia

San Francisco, California | 415-518-6387 | tylerchia7@gmail.com
LinkedIn: https://www.linkedin.com/in/tylerchia/ | Portfolio: https://tylerchia.github.io/TylerChiaPortfolio/

EDUCATION

University of Texas at Austin | Master of Science. in Data Science | GPA: 4.00/4.00 **Graduated Spring 2025**
University of California, Santa Barbara | Bachelor of Science. in Statistics and Data Science | GPA: 3.80/4.00 **Graduated Spring 2022**
University of California, Santa Barbara | Bachelor of Arts in Economics | GPA: 3.80/4.00 **Graduated Spring 2022**

- **Minors:** Spatial Science, Professional Certificate in Technology Management

PROFESSIONAL EXPERIENCE

ML Engineer | *Reyes Coca-Cola Bottling* | *Irvine, CA* **June 2024-Present**

- Deployed end-to-end MLOps pipeline using Docker, Azure ML, and Snowflake for automated model retraining and drift detection across 4,000+ Nielsen category forecasting models using Facebook Prophet
- Built forecasting system predicting 26-week category trends that directly influenced shelf space negotiations at 168-store account (Stater Bros), securing SSD commitments during major remodels worth significant revenue impact
- Designed merchandiser routing web application using ESRI distance matrix API and ML-based in-store time estimation, reducing manual rerouting effort by 70%
- Developed LSTM-based reactive technician demand forecasting system (TensorFlow) with 7-day lookahead, demonstrating potential to reduce technician idle time and labor costs at LA distribution center

Junior Data Scientist | *Reyes Coca-Cola Bottling* | *Irvine, CA* **September 2022-June 2024**

- Fine-tuned vision transformer (ViT) to classify 200K+ monthly display photos by quality (good/angled/compressed), deploying daily scoring pipeline processing 8-15K images
- Automated extraction of 800+ annual Walmart PDF planograms using Flask-based NLP tool, saving space team 1,600+ hours annually
- Created warehouse slotting algorithm using market basket analysis (Apriori) with operational constraints, achieving 5-15% improvement in Cases Per Hour and reducing layout creation time by 4-5x
- Engineered holiday planning recommendation system automating delivery adjustments for 4-day work weeks, saving ~2,300 hours annually
- Applied unsupervised ML to optimize corporate credit card limits across 10 tiers, reducing monthly liability by $1.49M with zero limit extensions; replicated approach for sister company achieving additional $914K reduction

Data Science Intern | *Reyes Coca-Cola Bottling* | *Irvine, CA* **June 2022-September 2022**

- Built K-means customer segmentation model for food service clients (QSRs, universities, hospitals) identifying profitability drivers based on product mix; visualized in Power BI to guide account managers in shelf space negotiations
- Designed agglomerative clustering + business logic solution to optimize surveyor driving routes, saving 20 labor hours/month via Alteryx workflow handed off to Sales Ops

Data Science Fellow | *Central Coast Data Science Partnership* | *Santa Barbara, CA* **September 2021–June 2022**

- Completed UCSB's year-long Data Science Capstone Series, collaborating with Carpe Data (insurance tech firm) on fraud classification project using HTML-based features and machine learning models in Python
- Served on committees organizing data science events, tutoring sessions, and community outreach initiatives

SELECTED PROJECTS

AI Legal Contract Analyzer | Python, LangGraph, GPT-5, Flask **November 2025**

- Engineered agentic AI system for automated contract analysis using LangGraph orchestration, integrating PDF parsing, risk identification, web research via DuckDuckGo API, and Google Calendar API for deliverable tracking
- Deployed production Flask application on Render with SMTP email delivery for markdown contract summaries, serving real client contract review needs

Adversarial NLP Robustness Research | Python, PyTorch, HuggingFace **December 2024**

- Investigated adversarial vulnerabilities in ELECTRA-small model for natural language inference (NLI), revealing 59% accuracy drop (89.3% → 29.9%) on adversarial examples
- Improved model robustness by +47% accuracy through fine-tuning on ANLI and sarcasm-specific datasets, mitigating token overlap bias
- Demonstrated that targeted fine-tuning strengthens comprehension of nuanced language, contributing to more human-like NLP reasoning

SKILLS

Languages: Python, R, SQL, C++, PySpark, HTML/CSS
ML/AI Frameworks: PyTorch, TensorFlow, LangChain, LangGraph, HuggingFace, Scikit-learn, LightGBM, XGBoost, Optuna, CrewAI
NLP/Computer Vision: NLTK, SpaCy, Vision Transformers (ViT), FAISS, Ollama, GPT
MLOps/Cloud: Docker, Azure ML, Databricks, Snowflake, Azure DevOps, GitHub, Azure Container Registry
Development: Flask, Streamlit, PyShiny, RShiny, FastAPI, REST APIs, Render
Data/Visualization: Pandas, Power BI, Tableau, Plotly, Matplotlib, Seaborn, ggplot2
Specialized: Prophet (forecasting), Market Basket Analysis, LSTM, Optimization Algorithms, ESRI ArcGIS, Alteryx