Peter Fu Chen

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EDUCATION

University of Chicago Dec. 2024 (Expected)
M.S. in Applied Data Science | Cumulative GPA: 4.0 / 4.0 *Chicago, IL*

Michigan State University May 2023
B.A. in Economics, Minor in Quantitative Data Analytics | Cumulative GPA: 4.0 / 4.0 *East Lansing, MI*

SKILLS

Data Stack: SQL (MySQL, MS SQL, PostgreSQL, MongoDB), Python (Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch), R, Excel
Quantitative Analysis: Machine Learning (Regression, Classification, Clustering, Decision Trees, Random Forest, Support Vector Machines (SVM), Natural Language Processing (NLP), Deep Learning), A/B Testing, Statistical Analysis, Time Series Analysis
Tools: Azure, GCP (Google Cloud Platform), AWS (Amazon Web Services), GitHub, Visual Studio Code, R Studio, ChatGPT, Docker, Microsoft Office, Adobe Creative Suite, Workiva Platform, Spark, Hadoop, Tableau, Power BI, Alteryx

EXPERIENCE

KPMG LLP Jun. 2024 - Present
Enterprise Data Services Intern *McLean, VA*

- Developed complex **SQL** queries and **ETL** processes for **data pipeline** implementation using **Azure Databricks** to migrate 50+ tables from the Enterprise Data Warehouse to Azure Data Lake, resulting in a 30% increase in database scalability
- Deployed a telecom customer analytics dashboard using **Power BI**, integrating KPIs from subscription, billing, and network performance, providing quantitative actionable insights and qualitative analysis that improved operational efficiency by 25%
- Leveraged Azure **Automated Machine Learning** with XGBoost and Random Forest Classification models for telecom customer churn prediction, achieving 76% in prediction accuracy and enabling proactive retention strategies

UChicago Data Science Institute Jan. 2024 - Present
Data Scientist - Capstone Project *Chicago, IL*

- Led a team of four in developing a Generative AI-powered financial analysis platform, using **Python**, **GCP**, and **Gemini 1.5 Pro**, and processing over 200GB of daily market data
- Fine-tuned and published a sentiment analysis model on Hugging Face using the pre-trained FinBERT model with 4.9 billion tokens, adding an additional 1.1 million tokens for **NLP sentiment analysis**, achieving 90.8% accuracy
- Delivered real-time market data with AI-driven insights, resulting in an average 4% increase in simulated portfolio returns compared to the S&P 500, demonstrating the platform's effectiveness in enhancing investment strategies

Blue Cross Blue Shield of Michigan May. 2023 - Aug. 2023
Underwriting Intern *Detroit, MI*

- Leveraged **Python** to perform **data cleaning and transformation** on healthcare utilization, claims costs, and demographics for over 2,000 groups, representing $8 million in revenue, which resulted in a 50% reduction in data processing time
- Performed **data analysis** and risk management analysis using **Excel** (formulas, pivot tables, and VLOOKUP), resulting in a 15% improvement in underwriting accuracy and optimized renewal premium recommendations to meet ROI targets
- Developed **Tableau** dashboards for detailed claims cost, margin, utilization data visualization, identifying cost-saving opportunities that resulted in a 7% increase in profitability and pricing accuracy

MoMo Tea Sep. 2015 - Jan. 2024
Co-Founder *East Lansing, MI*

- Directed a **cross-functional team** of 10+ employees, driving growth marketing, pricing strategy, and competitive analysis that resulted in a consistent 15% annual revenue growth and a 30% return client conversion rate
- Architected and executed a high-impact digital marketing strategy across Instagram and Facebook, utilizing **A/B testing** to significantly boost consumer engagement, user portfolio, traffic, and sales
- Implemented a customer feedback loop and rapid response system, ensuring prompt resolution of issues and continuous improvement in service quality, which contributed to a 4.6-star Google review rating and a 4.9-star Uber Eats rating

PROJECTS (PORTFOLIO LINK)

Time Series Analysis on Gold May 2024

- Utilized ARIMAX, Prophet, and ARCH models to forecast and analyze 5 years of gold prices and its volatility, with the Prophet model achieving a 38.7 RMSE on testing sample predictions, enhancing strategic investment decisions

Credit Score Machine Learning Prediction Jan. 2024

- Applied data modeling and machine learning techniques, trained and optimized XGBoost, Random Forest, and Decision Tree Classifier models on a 100K-record dataset, achieving 79% accuracy to enhance loan approval processes