Michael Zhang, CFA

Data Science | Analytics

801-809-9090 | mikezhang23@gmail.com | linkedin.com/in/mikezhang23 | github.com/mikezhang23

MOTIVATION

I **solve business problems** using Data Science & Analytics and systematically & creatively use my skillset to **add tangible value** to the business and the end-user. I am **constantly learning** and always looking to improve.

SKILLS & TOOLS

Programming: SQL, Python (Base, Pandas, NumPy, Matplotlib, Scikit-Learn)
Tools: Excel, Tableau, GitHub, AWS (S3, Lambda, IAM, EC2, SageMaker, RDS, DynamoDB, Glue)
Statistics: Hypothesis Testing, AB Testing, Central Limit Theorem, Distributions
Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, KNN, k-means, PCA, Association Rule Learning, Causal Impact Analysis, Neural Networks

PROJECTS

AI Sports Betting Machine Learning App

- Creating a **Machine Learning algorithm in Python** to make predictions on betting lines for NBA and NFL games. Currently testing the app in accuracy and user experience. This approach could be utilized across many industries as a way to make better predictions using data.

WORK EXPERIENCE

Founder, Inversion Capital (Las Vegas, NV) Jun 2022 – Present

- To conduct market research on the profitability single family real estate listings for short-term rentals, I built a **single family short-term rental profitability model** using data from Zillow, Airbnb, and the St. Louis Fed. Las Vegas was deemed highly likely to be profitable with 3+ bedroom homes with pools based on the statistics from the St. Louis Fed cross examined with purchase prices from Zillow and rental pricing from Airbnb.
- The model has **shown consistency in results** as we have purchased five single family homes fitting the criteria and all five have spun off positive cash flow with an average pay back period of 1.5 years.

Investments Director, Kalonymus (Los Angeles, CA) Nov 2021 – May 2022

- To conduct profitability analysis of apartment rehab deals in California, I built an **apartment financial profitability model** using market data from property managers, brokers, and prior deals.
- The model resulted in investments in over $50 million in apartment rehab deals across California with an average **return on investment** of 15%.

Acquisitions Associate, Boulevard Partners (Los Angeles, CA) Jan 2020 – Oct 2021

- To conduct analysis on office and retail deals in Venice and The Arts District in Los Angeles, CA, I built a **commercial financial profitability model** using market data from brokers and market aggregation tools.
- The model resulted in **over 20 purchase offers** and $100 million in potential equity invested.

Senior Analyst, Brookfield Properties (San Diego, CA) Oct 2018 – Dec 2019

- To conduct ground up development feasibility analysis, I built a **feasibility real estate model with a dynamic summary dashboard** for leadership to easily see important metrics for making multi-billion-dollar decisions on which projects to green light.
- The model was used to **analyze ground up multi-use developments** and was used company-wide at Brookfield, whose assets eclipse $1 trillion dollars.

Equity Research Associate, Brandes Investment Partners (San Diego, CA) Oct 2014 – Sept 2018

- To conduct research on companies to invest in, I built a **3-statement financial model** with an intrinsic value result for each company analyzed.
- The model was used to **invest in multiple public companies** in the technology space such as Microsoft, Spirent Communications, Western Digital, Ericsson, and Nokia.

EDUCATION

BS (Accounting) 2007 - 2011
University of Utah

- Dean's list all semesters

COURSES, CERTIFICATES AND QUALIFICATIONS

Data Science Professional Certification 2025
Data Science Infinity

- **Actionable Learnings:**
  - Extracting & manipulating data using SQL
  - Application of statistical concepts such as hypothesis tests for measuring the effect of AB Tests
  - Utilizing GitHub for version control, and collaboration
  - Using Python for data analysis, manipulation & visualization
  - Applying data preparation steps for ML including missing values, categorical variable encoding, outliers, feature scaling, feature selection & model validation
  - Applying ML algorithms for regression, classification, clustering, association rule learning, and causal impact analysis for measuring the impact of an event over time
  - Machine Learning pipelines to streamline the ML pre-processing & modelling phase
  - Deployment of an ML pipeline onto a live website using Streamlit
  - Using Tableau to create powerful Data Visualizations. Turning business problems into Data Science solutions

Chartered Financial Analyst (CFA) 2016
CFA Institute

- **Actionable Learnings:**
  - Understanding investing from a statistical base rate point of view, understanding how different financial products work, and understanding how present value and compounding work.
  - This could be used to communicate statistical analysis to stakeholders in a way that they could understand the business value and impact from what the data tells us.