CHUANJUN JIAO

Wilmington, NC | Portfolio https://charles-jiao.netlify.app

SUMMARY

Aspiring data scientist with a background in medicinal chemistry and strong experience in Python-based data analysis, machine learning, and business reporting. Skilled in translating complex data into actionable insights through EDA, modeling, and visualization.

TECHNICAL SKILLS

- Languages: Python, SQL, Bash
- Libraries & Frameworks: Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, TensorFlow
- Tools: Jupyter, Git, Excel
- Techniques: EDA, Data Cleaning, Regression, Classification, Clustering, A/B Testing

FEATURED PROJECTS

- **Benchmarking Regression Models on Indian Used Car Price Prediction** (July 2025)
  - Predicted used car prices with Linear Regression, Ridge Regression, Decision Tree, Random Forest, KNN models
  - Performed feature engineering, hyperparameter tuning, and model evaluation using cross-validation
  - Achieved top test R^2 (0.910) and lowest RMSE (3.35) with Ridge Regression.
- **Predicting Boston Housing Prices: A Linear Regression Approach** (May 2025)
  - Built a linear regression model ($R^2 = 0.73$) using pandas and scikit-learn
  - Improved accuracy by 10% through log transforms and one-hot encoding
  - Visualized key drivers (e.g., rooms per dwelling) using Seaborn
- **Unsupervised Learning on Marketing Campaign Data: PCA, t-SNE, and K-Means Clustering** (Jan 2025)
  - Clustered customers into 2 segments using K-Means on marketing campaign data
  - Reduced dataset dimensionality using PCA/t-SNE in Python
  - Performed EDA and feature engineering with visualizations using NumPy, pandas, and Matplotlib

WORK EXPERIENCE

IKA Works, Inc., Product Manager **Oct 2018 - Present**

- Deliver global product training for 15+ sales team members
- Automated a weekly sales report using pandas, NumPy, Matplotlib, seaborn, pptx, and docx (Python)
- Implemented pipeline heatmaps using Matplotlib, pandas, cartopy, and shapely (Python)
- Performed a regional business analysis based on local pipeline using NumPy, pandas, sklearn, Matplotlib, and seaborn
- Increased annual Bioprocessing solution sales by 50% in 2024
- Presented 60-minute lectures titled *E-lluminating the Renaissance of Organic Synthesis* to 15+ pharmaceutical companies

Mangan Inc., Associate Scientist **Jan 2018-Sep 2018**

• Conducted three cleanability studies daily to ensure process compliance and data integrity

Southern California Gas Company, Engineering Intern **Jun 2017-Sep 2017**

- Conducted research and analysis on the market and technology trends in the power industry

UCLA Chemical and Biomolecular Engineering Department, Research Assistant **Sep 2015-Oct 2017**

- Analyzed profits of the production process to justify the commercial value of proposed zero-emission power plant
- Used Python to manage stream data, including temperature, heat load

EDUCATION

UCLA - Master of Science, Chemical Engineering

Graduated Oct 2017 | University Fellowship (2016) Recipient

Jilin University - Bachelor of Science, Chemistry

Graduated Jun 2015 | Scientific Research Individual Awards, College of Chemistry (2014) Recipient

CERTIFICATIONS

- *Applied Data Science Program: Leveraging AI for Effective Decision-Making*, MIT - April 2025