Xinyu (Kenny) Zhang

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EDUCATION

University of North Carolina at Chapel Hill **Expected May 2025**
Master of Science in Statistics, Analytics and Data Science *Chapel Hill, NC*

The Ohio State University **Aug 2019 - May 2023**
Bachelor of Science in Statistics | Minor in Computer Science(GPA: 3.8) *Columbus, OH*

SKILLS

Programming languages: Python, R, SQL, Java, C, C++, JMP, MATLAB, Arena
Database & Tools: MySQL, Tableau, AWS, SAS, Excel, Spark
Technical Skills: Machine Learning techniques, Deep Learning, Git, Stochastic Process, Supervised Learning, Unsupervised Learning, NLP, Data Mining, Data Analysis and Visualization, Predictive Modeling, Computer Science, Exploratory Data Analysis, Time Series, Operation Research, Inference Statistics, Optimization, Simulation
Language Skills: English, Mandarin

WORKING EXPERIENCE

Acquco **May 2024 - Aug 2024**
Data Science Intern *New York, NY*

- Generated detailed inventory and financial reports using SQL, thoroughly analyzed large datasets to uncover key trends, and effectively streamlined reporting processes to support data-driven sales strategies, particularly for the back-to-school season.
- Developed an AI integration proposal for customer service, fine-tuned the GPT-3.5 model to boost email classification recall from 0.52 to 0.83, enhancing efficiency, customer satisfaction, and reducing operational costs compared to vendor solutions.

Wexner Medical Center **May 2022 - Aug 2022**
Data Analytics Intern *Columbus, OH*

- Implemented time series forecasting with ARIMA and SARIMA models for medical products and equipment, improving market price prediction accuracy by 20% and automating the pipeline to cut manual effort by 50% for timely pricing adjustments.
- Developed interactive visualizations in Python (Matplotlib, Seaborn, Plotly) to support price predictions, benchmark spending, and enhance negotiation strategies, resulting in 15% cost savings for category purchasing.

University of North Carolina at Chapel Hill **Aug 2023 - May 2024**
Teaching Assistant *Chapel Hill, NC*

- Instructed two undergraduate statistics and data science courses, supporting students' academic performance through weekly recitations, office hours, and detailed feedback on assignments and exams.

The Ohio State University **Aug 2020 - Jul 2023**
Student Analyst *Columbus, OH*

- Provided customer support to faculty and students by addressing IT software and hardware issues, managing IT systems including identity management and cybersecurity, and mentoring new student employees in system management and customer service skills.

PROJECTS

Sarcasm Detection with NLP Techniques | *Python* **Jan 2024 - April 2024**

- Detect potential sarcasm in a text through preprocessing in Python with Pandas, Numpy, and NLTK, applied Naïve Bayes, Logistic Regression, SVM, CNNs, LSTM, and BERT, achieving 97% accuracy.
- Developed visualization of key sarcasm indicators and established guidelines to help prevent misinterpretation of sarcastic news as real.

Breast Cancer Subtype Classification with ML Techniques | *Python* **Aug 2023 - Dec 2023**

- Classified breast cancer subtype in Python using features describing digitized images of fine needle aspirates of breast masses.
- Exploratory Data Analysis using L1 Logistic Regression, Multidimensional Scaling, and PCA to perform feature reduction.
- Applied classification methods including logistic regression, KNN, LDA, QDA, SVM, Random Forest, XGBoost, and Neural Networks, achieving 99.3% accuracy with KNN on MDS data to ensure appropriate treatment for each corresponding subtype.

Analysis of Life Expectancy | *R* **Nov 2023 - Dec 2023**

- Conducted Exploratory Data Analysis in R on WHO data, managing missing values and creating temporal averages; used various regression techniques including Linear, Ridge, LASSO, Elastic Net, PCR, and PLS.
- Applied stepwise regression to identify key predictors and achieved an optimal prediction accuracy with a Mean Squared Error (MSE) of 14.58, providing actionable insights for public policy to improve health outcomes.