

# Baofang (Luna) Zhang, PhD

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Bear, DE

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## Data Scientist

### **Solve Complex Business Challenges by Gathering Key Insights Using Data Modeling, Data Visualization, and Data Science Methodologies**

- Analytical and innovative, collaborating well across teams to deliver projects on time and within budget.
- Extract insights from data through data mining, data visualization, and machine learning (ML) to help business leaders make informed decisions. Bring new technology Generative AI, LLM to business, developing products for customers based on business requirements. Experience spans supply chain, retails, marketing, and healthcare.
- Proven expertise in managing processes and business methodologies and mentoring and leading teams to achieve goals.
- Customer-focused and adaptable to a variety of work environments, with high tolerance for risk and stress associated with strict deadlines.

## Skills

- Python (NumPy, Pandas, Matplotlib, Seaborn, Sklearn, Scipy, Tensorflow, Pytorch, Keras, Requests, Beautiful soup), RNNs, NLP (NLTK), SpaCy, PySpark, SQL (MySQL, PostgreSQL), R, Supply Chain, Business Analytics, Marketing.
- Regression, Classification, Clustering, Experiment Design and Analysis, Feature Engineering, Time Series, Statistical / Predictive Modeling, Segmentation, A/B testing, Bayesian inference, Linear Regression, Logistic Regression, Decision Tree, Random Forest, GBoost, XGBoost, SVM, Generative AI, LLM.
- Jupyter Notebook, Linux, GitHub, Jira, AWS, Flask, Google Cloud Platform(GCP), Slack, SSDM, Visual Studio.

## Experience

**DUPONT**, Wilmington, DE

2021 - 2024

### **Data Scientist Lead / Artificial Intelligence (AI) / Machine Learning (ML) / Subject Matter Expert (SME)**

- Led 5 demand analysts in forecasting monthly demands, using timeseries models for supply chain and financial groups, allowing ability to make production plans and optimize inventory.
- Analyzed correlation between demands and marketing indicators, providing business insights for marketing group to help drive customer strategies and achieve goals.
- Organized activities for Data Science CoP Club and Dupont Asian Group (DPAG) as a communication lead.

**TECHLENT, INC**, San Mateo, CA

2020 - 2021

### **Data Scientist**

- Assessed risk of confirmed Covid-19 cases, using classification methods, and solved imbalance issue by adopting SMOTE technique, compared models (Logistic Regression, Decision Tree, Random Forest, GBoost, XGBoost) performance to develop robust predictive models. Compared metric values, determining performance of XGBoost algorithm was the best, which was wrapped up as an API, using Flask and served on Google Cloud Platform (GCP).

**TECHLENT, INC (Continued)**

- Classified news to categories through TF-IDF Vectorizer to extract features, with stemming, unigrams, bigrams values, and binary values.
- Priced cosmetic products, using Lasso regression model and PCA technique, for client, analyzed profitability, and provided insights concerning feature importance to the price for client.

**PIDILITE USA INNOVATION CENTER**, Raleigh, NC

2017 - 2018

**Data Scientist / Research Scientist**

- Used Design of Experiment (DOE) statistics tool to design experiments; collected, analyzed, and visualized experiment data.
- Coordinated tasks with other team members and reported project progress to business stakeholders.
- Improved product properties within 3 months by optimizing experiment conditions.

**MICHIGAN STATE UNIVERSITY**, East Lansing, MI

2016 - 2017

**Data Scientist / Research Associate**

- Built a regression model (R2 score was close to 0.98) to calculate absorption of can coating film to fragrance compounds from beverage, which helped Coca-Cola Company replace previous laborious method, saving tedious labor work and money.

**LOUISIANA STATE UNIVERSITY**, Baton Rouge, LA

2008 - 2010

**Data Scientist / Research Assistant**

- Studied how temperature, humidity, and crop types affected CO2 content in soil and air, using statistic methods.

**HENAN NORMAL UNIVERSITY**, Xinxiang, Henan, China

2006 - 2008

**Data Scientist / Research Associate**

- Designed and conducted experiments and mentored undergraduates and master graduates in projects.

**Education | Certifications**

- **Doctor of Philosophy (PhD)**, Polymer Chemistry, University of Akron, Akron, OH
- **Master of Science (MS)**, Beijing University of Chemical Technology, Beijing, China
- **Bachelor of Science (BS)**, Henan Normal University, Xinxiang, China
- **Certified Professional Forecaster (CPF)**, Institute of Business Forecasting & Planning, online