# Mina Akhondzadeh

### **Data Scientist**

PhD student in Big Data Analytics at UCF with a 4.0 GPA and hands-on experience in Al-driven business risk modeling, credit scoring, and NLP. Industry experience includes developing explainable neural network models and large language model fine-tuning. Technical expertise spans Python, R, SQL, AWS, and advanced statistical methods. Completed a 9-month Dataguest Data Science program (2022) and multiple applied projects in credit risk, churn prediction, and text classification.

#### **EDUCATION**

#### PhD Big Data Analytics

University of Central Florida Orlando, FL 2023 - current

#### **MS Statistics and Data Science**

University of Central Florida Orlando, FL 2023 - 2025GPA: 4.0/4.0

#### **MA Interior Architecture**

Chatham University Pittsburgh, PA 2016 - 2018

#### **BS Aerospace Engineering**

Sharif University of Technology 2010 - 2015Tehran, Iran

#### **SKILLS**

#### Certifications:

**AWS Certified Cloud Practitioner** 

Programming Languages & Tools:

- Python (NumPy, Pandas, Matplotlib, Scikit-learn, PyTorch, TensorFlow)
- R (Tidyverse, ggplot, Caret)
- SQL
- Excel, Power BI, Spark

Machine Learning & Data Analysis:

- **Supervised & Unsupervised** Learning
- **NLP** (Transformer Models, **Large Language Models** (LLMs))
- **Deep Learning (Neural Networks**, Attention Mechanisms) Model Fine-Tuning (BERT, LLaMA)
- LLM Frameworks: HuggingFace
- **Exploratory Data Analysis Hypothesis Testing, ANOVA**

## **WORK EXPERIENCE**

#### Worth AI **Data Scientist Intern**

Orlando, FL | Summer 2024

Investigated the impact of missing values on business credit scores and developed neural network models for prediction. Diagnosed reasons for high scores in data with over 60% missing values and proposed solutions. Compared SHAP and Integrated Gradients for explainability and used AWS Athena with SQL for data querying.

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University of Central Florida

Orlando, FL | Fall 2023

#### **Graduate Teaching Assistant**

Assisted Statistical Methods students with fundamentals like descriptive statistics, sampling distributions, probability, and hypothesis testing.

Tri-State Office Furniture Inc.

Pittsburgh, PA | 2021-2022

**Design Director** 

Led a team of 5 designers, ensuring project profitability and exceeding design expectations, while collaborating with 3 other departments.

Tri-State Office Furniture Inc.

Pittsburgh, PA | 2018-2021

**Interior Designer** 

Executed design-to-installation for 150+ projects, using 3D modeling.

#### **PROJECTS**

Feed Forward Neural Network for Business Credit Score **Prediction (Internship)** 

Applied a Feed Forward Neural Network to predict business credit scores using financial, social, and economic data. Utilized SHAP and Integrated Gradients for model explainability, compared their algorithms and performance. (Python)

- **KNN** for Pseudo Business Score Development (Internship) Developed a pseudo business score using KNN on historical data grouped by industry to provide credit score ranges for potential SMB customers, promoting Al-powered underwriting solutions to enhance financial profiles and loan eligibility. (Python)
- K-Means Clustering for Churn Prediction Performed K-Means Clustering on credit card data for churn prediction, determining optimal clusters with WCSS. (Python)
- Fine-tuning LLMs for Amazon Reviews Text Classification Fine-tuned DistilBERT and trained a TF-IDF + logistic regression baseline to classify Amazon product reviews. Compared model accuracies, used t-SNE to visualize feature representations, and analyzed misclassified reviews to identify common errors. Examined attention weights to compare patterns between correctly classified and misclassified cases. (Python)

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#### **COURSES**

Data Preparation, Data Mining	(4/4)	Theoretical Statistics (4/4)	
Statistical Computing	(4/4)	Experimental Design (4/4)	
Regression Analysis	(4/4)	Linear Algebra	
Statistical Data Processing	(4/4)	Algorithms: Design and Analysis	
Multivariate Statistical Methods	(4/4)		