

Atefeh Anisi

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OBJECTIVE

To obtain an internship or co-op in the field of Data Science, and Machine Learning in Summer or Fall 2023. High-aspirational data scientist with strong teamwork and effective communication skills, outstanding aptitude for learning, and a talent for problem solving. I have five years of modeling and problem-solving experience using optimization, machine learning, and deep learning in both the business and academic worlds. Additionally, I am proficient in scripting languages such as Python and R and possess a deep understanding of data visualization, and exploratory data analysis using tools like R, Tableau.

EDUCATION

Iowa State University, Ames, IA	PhD in Operations Research and Data Analytics	GPA 3.83/4.00	Aug 2024
Sharif University of Technology, Tehran, Iran	M.Sc. in Industrial Engineering	GPA 3.48/4.00	Jul 2020
Semnan University, Semnan, Iran	B.Sc. in Industrial Engineering	GPA 3.69/4.00	Jul 2017

EXPERIENCE

Graduate Research Assistant Iowa State University, Ames, IA Jan 2021 – Present

- **Studies on divergent thinking in female and male students**

The investigation of the relationship between emotional engagement and creativity and the relationship between student engagement level and demographic traits such as gender, major, age, grades (GPA), etc., using electrodermal activity (EDA) sensors. Significant differences in students' engagement were observed when exposed to creativity inspired tasks. Also, it was investigated that whether the stereotype threat affect creative thinking in female engineering students or not. Result showed that the stereotype threat did not impact performance. The data was analyzed and preprocessed in **MATLAB**; Repeated Measures ANOVA and other statistical tests have been done on the data to obtain results using **R** and **SPSS**. **Excel** has been used to produce visualization reports.

- **Applied Conjoint Analysis on iPhones using text data**

Investigating and analyzing attributes of refurbished iPhones and how much they affect consumers' choice while choosing between brand new and refurbished iPhones using text data from the Amazon and the GSMArena website. Complete labeled datasets of Amazon and GSMArena reviews for refurbished and brand-new iPhones have been created. The reviews have been crawled and preprocessed using **Python**. Different **unsupervised** and **supervised text analytics techniques** have been used in this work. (Ongoing project)

- **An Agent-based model (ABM) for pricing of multiple-generation products in a competitive environment using Text Mining and Sentiment Analysis**

Results showed that the text mining parameter, which was calculated regarding the sentiments behind text data, can explain most of the difference between the ABM predicted prices and the actual ones. My developed model was able to reduce RMSE by almost 80%. **R** software has been used to extract, preprocess, and analyze the data. The **ABM model** was simulated in **Netlogo** environment.

Project Manager Intern Dadehpardazi Inc., Tehran, Iran May 2020 – Dec. 2020

- Used **MSP** software to manage work and project progress cooperatively in a team.
- Presented project progress and outcomes to stakeholders using visualized reports.

PROJECTS

- **Advanced Techniques for Image Analysis:** Implementing deep learning techniques like **YOLO**, **RCNN**, **Fast-RCNN**, and **GANs** for object detection, image classification, and segmentation on different well-known datasets such as CIFAR-10, MNIST, etc. using **TensorFlow**.
- **Improving the accuracy on CIFAR-10 dataset:** Implemented **deep learning** algorithms to build an **image classification model** to classify images in CIFAR-10 dataset. Different models, such as **CNN**, **RCNN**, **YOLO**...with 3,000 images were tested to train the model using **TensorFlow**. Among these models, **YOLO** model achieved accuracy and average precision of 100% and 90%, respectively.
- **Sentiment Analysis of Apple Community Forum Reviews:** Reviews of Apple users from the Apple community forum have been obtained using **R**, and iPhone reviews were filtered and used for sentiment analysis. Then, a defined **text mining** parameter for different iPhone models was calculated and used in an Agent-based model to get pricing strategies.
- **The Application of Deep Learning in House Price Prediction:** Training samples containing the number of bedrooms, size, location, etc., were acquired and preprocessed from the Kaggle website for almost 60000 houses in the US. The effect of using the **Genetic Algorithm** for updating the weights has been investigated. As a result, using the **Genetic Algorithm** to update the weights has improved the default **neural network** performance. The Mean Absolute Error has decreased by almost 6.6%. **Python** has been used for modeling.

CERTIFICATES

- Neural Networks and Deep Learning, and Structuring Machine Learning Projects from Coursera.
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization, and Optimization from Coursera
- Using Databases with Python from Coursera

TECHNICAL SKILLS

- **Programming Languages:** Python, R, MATLAB
- **Machine learning libraries:** TensorFlow, Keras, Scikit-learn, PyTorch, Pandas, Visualization and Statistical Packages in R
- **Software:** Microsoft Project, Microsoft Office, Netlogo, GAMS, SPSS