AYMAN FAHSI

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SUMMARY

MS in Artificial Intelligence candidate (May 2024 grad.) seeking full-time roles in Data Science, MLOps, or ML Engineering. Skilled in data analysis, machine learning, and operational efficiency. Previously implemented end-to-end forecasting pipeline to classify truck battery health.

EXPERIENCE

Navistar Inc. Chicago, IL
Data Science Intern *May 2023 - August 2023*

- Fully implemented PySpark pipeline for large-scale telemetric dataset to predict battery health in trucks
- Extracted battery health patterns from 5.7 million rows nested time series data
- Identified 14 key indicators of declining battery health and implemented filters to construct VIN Alert List system
- Converted data preparation and feature engineering steps from Pandas to PySpark to improve runtime 100x
- Visualized variables and explored relationships between data using matplotlib
- Engineered features and constructed new dataset to train XGBoost model
- Created a 10-page document summarizing project logic, methods, data analysis, design

Scarlet Data Studio Chicago, IL
Software Engineer Intern *July 2022 – August 2022*

- Utilized Python, Prefect, and Git to build and apply match generation functionality to Butterfly app
- Implemented unique match generator for community members based on rarest interests
- Designed and implemented cooperative in-app word-guessing game

SKILLS

Technical Languages: Python, R, SQL, PySpark
Related Tools: R Studio, Github, AWS, S3, EMR, NumPy, Keras, TensorFlow, Scikit

PROJECTS

Nested Deformable Multi-Headed Attention Layer For Image Inpainting

- Corrupted HD face images from CelebA_HQ (30,000 images) using QD_IMD masks via custom python script
- Implemented Deformable Multi-Headed Attention and several Gated convolution layers with Pytorch and OpenCV
- Implemented UNet-like encoder-decoder network for baseline comparison
- Wrote custom implementations for Peak Signal-to-Noise Ratio and Structural Similarity Index Measure to gauge metrics

Emotion and Gender Classification Pipeline

- Employed NumPy, Scikit-learn, OpenCV, and TensorFlow, to implement architectures
- Preprocessed FER-2013 (29,000 images) and IMDB Faces Only (460,000 images) datasets to train classifiers
- Applied Data Augmentation to generate multiple classification models and evaluate metrics
- Replicated classification pipeline and validated findings of Real-time convolutional neural networks for emotion and gender classification

VOLUNTEERING

Exelon Summer Institute
Lead Computer Science Instructor

- Designed custom lesson plans to prepare incoming college freshman for Object Oriented Programming 1 and 2
- Led a team of teaching assistants to teach in both classroom and one-on-one settings
- Earned "Best CS Mentor" award three consecutive summers for exceptional mentoring

EDUCATION

Illinois Institute of Technology Chicago, IL
B.S. Computer Science, M.S. Artificial Intelligence