# **El-Khat**

MACHINE LEARNING ENGINEER · DATA SCIENTIST · SYSTEMS ENGINEER · PROJECT MANAGER

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# Skills

**Domain Knowledge** Neural Networks, Machine Learning, Advanced Statistical Techniques, Data Analysis

**Programming** Python, R, Julia, Matlab, C/C++, ŁTFX, SQL, HTML/CSS, \*nix **Frameworks** scikit-learn, TensorFlow, PyTorch, mlextend, NetworkX, Selenium **Software** Tableau, QlikView, Git, QGIS, Atlassian Suite, Microsoft Office Suite

Languages English, Arabic, Spanish

# **Experience**

#### **Senior Maintenance Analyst**

Reading, PA

PENSKE TRANSPORTATION SOLUTIONS

Jan. 2020 - Present

- · Built and implemented artificial intelligence models (supervised & unsupervised) to identify patterns in vehicle diagnostic trouble
- · Managed large terabyte-size datasets including Data ETL/ELT (Talend), relational databases (MSSQL, Snowflake), and various AWS
- · Worked with cross-functional team to implement migration of Data Analytics and Data services to AWS Cloud
- Mentored new employees providing subject-matter expertise and experience resulting in 3 months reduction in new-hire orientation
- Created and instructed training curricula for Python, R, MATLAB, Tableau, SQL, Git

## **Operational Excellence Project Specialist**

Reading, PA

PENSKE TRANSPORTATION SOLUTIONS

Aua 2019 – Jan 2020

- Created an in-browser GIS visual mapping interface for route analysis and location planning using JavaScript, HTML, and Bing Maps
- Developed data analysis training documentation and presentations for Lean Six Sigma Black Belt certification program
- · Lead internal automation team achieving 90% reduction in effort associated with report generation and data analyses
- · Developed and optimized facility-location allocation problems to identify optimal placement and of maintenance facilities to maximize business coverage

## **Operation Excellence Analyst**

Reading, PA

PENSKE TRANSPORTATION SOLUTIONS

Aug 2018 - Aug 2019

- Designed and maintained relational databases, stored procedures, reports, and data input interfaces using SQL Server, Oracle DB,
- Lead initiative to implement and formalize version control system (Git) protocols
- · Imported, exported and manipulated large data sets in multi-billion-row databases under tight deadlines
- Eliminated 1.5 FTEs by automating classification of technician repair notes using NLTK and scitkit-learn

# Education

### **Cornell University**

Ithaca, NY

M. Eng. Systems Engineering · Computational & Data Science Certificate

Aug. 2018 - May 2020

- Created residual neural network resulting in 77% accuracy in detecting abnormalities in musculoskeletal X-rays
- Facilitated development of AlexNet model achieving 89% accuracy in classifying CIFAR-10 images
- · Assisted in developing recommendations and best-practices to reduce greenhouse gas emissions from existing buildings in Ithaca, NY (part of Ithaca Green New Deal)

#### **West Virginia University**

B.S. Psychology

Morgantown, WV Aug. 2012 - May 2015

• Awarded WVU Foundation Outstanding Senior designation given to top 45 graduating seniors.

- Successfully defended thesis: Attentional Bias in Political Conservatism: A Comparison of Disgust and Fear
- Performed literature searches and conducted quantitative analytical processes of data using SPSS.

ALI EL-KHATIB · RESUME MAY 10, 2021