

# MOHAMMAD ABDOLLAHI, PHD

## Sr. Manager II, Data Science

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## WORK EXPERIENCE

### Sr. Manager II, Data Science

#### Walmart

2023 | Now    Dallas, TX

- Managed and coached data science teams to boost productivity and develop innovative workforce planning AI/ML models.

Leadership    Delegation    AI/ML    OR

- Directed labor optimization project, currently piloted in select stores, with an estimated financial impact exceeding \$100 million.

deepAR    CMAB    Stochastic LP    Causal Reasoning    AB testing

- Developed and delivered multiple forecasting models, generating an impact of over \$50 million.

2 Stage SARIMAX    XGBoost    LGBM    multi-class classification

- Initiated and led the development of innovative task-based scheduling.

MILP    Column Generation    Collaborative Filtering

- Designed and implemented strategic roadmap along with Scrum execution plan, significantly enhancing growth and operational efficiency.

Scrum    Planning    Roadmap    execution

### Advanced Analytics Tech Lead

#### General Motors

2020 | 2023    Warren, MI

- Directed a team of 7+ data scientists, focusing on early detection and monitoring of safety issues to improve customer safety.

Leadership    NLP    Transformer    LLM    Big Data

- Managed the complete lifecycle of analytics-based app development, integrating strategic safety analytics with operational planning.

React    FastAPI    Asynchronous    Celery    Redis

- Facilitated collaboration between IT and stakeholders, defining SLAs for efficient model deployment and translating complex needs into Agile Scrum-driven projects.

Stakeholder Management    Agile    Triton    amqp

### Sr. Data Scientist

#### General Motors

2019 | 2020    Warren, MI

- Engineered a scalable web-based machine annotation and training application, enhancing user interaction and data processing capabilities.

## EDUCATION

### Wayne State University

#### Ph.D. in Industrial & Systems Engineering

Aug 2014 - Dec 2021

Detroit, MI    GPA: 4/4

### Wayne State University

#### M.Sc. in Computer Science

Aug 2016 - Dec 2018

Detroit, MI    GPA: 4/4

### University of Tehran

#### M.Sc. in Industrial & Systems Engineering

Aug 2012 - May 2014

Tehran, Iran    GPA: 4/4

## ACADEMIC EXPERIENCE

### Adjunct Professor

#### Wayne State University

2021

- Teaching advanced probability and statistics for engineers
- Prepared teaching material and held 1:1 technical sessions

### Graduate Research Assistant

#### Wayne State University

2014 | 2019

- Developed AI/ML solutions and algorithms to solve complex real world problems in health-care, transportation, supply chain.
- Published and presented multiple papers at AI/ML journals and conferences.
- Assisting instructor in designing course syllabus, teaching materials, and exams.

## SKILLS

### Soft Skills

Leadership    Communication    Delegation    Problem Solving    Stakeholder Management

- Mentored an analytics team, offering expertise in various platforms, analytics methodologies, and emerging technologies.
- Developed advanced deep learning models (RNN, CNN, Transformers) for NLP and telematics analytics, and established a version-controlled repository for models and code.

## Data Scientist

### General Motors

📅 2018 | 2019

📍 Warren, MI

- Deployed a distributed machine learning model for classifying text data into safety hazard categories, significantly reducing manual reading efforts.
- Developed NLP models for in-depth syntactic and semantic analysis, including word2vec and topic modeling.
- Created distributable APIs for efficient big data processing within the Hadoop ecosystem.

## Operations analytics Intern

### Bayer

📅 2017

📍 St. Louis, MO

- Developed a cutting-edge allocation and scheduling optimization, integrating spatiotemporal ML for producibility estimation.
- Created a user-friendly Flask-RShiny interface for the optimization API, streamlining access and usability for end-users.

## Data Science Intern

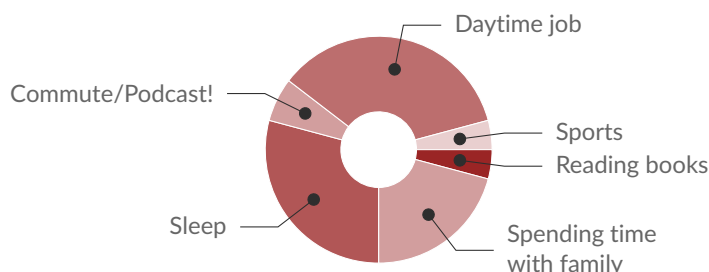
### Ford

📅 2016

📍 Dearborn, MI

- Developed optimization algorithms to support global mobility experiments ran by Ford.
- Developed mathematical models to measure and predict the applicability of the experiments.
- Collect and analyze data from existing mobility experiments to validate models.

## A DAY OF MY LIFE



## Programming Languages

Python

Java

C++

MATLAB

JavaScript

## Analytics

Statmodels

Pandas

Numpy

Scipy

Cplex

CPOptimizer

Gurobi

or-tools

SKLearn

XGBoost

TensorFlow

Torch

Transformers

Prophet

DeepAR

NLTK

Spacy

Gensim

## MLOps & Deployment

Triton

TFServing

Docker

FastAPI

PCF

Flask

amqp

Celery

## DataBase

SQL

Postgres

sqlite

Redis

## Big Data

Hadoop

Hive

HDFS

Spark

Dask

## Visualization & UI

React

Streamlit

R-shiny

Dash

HTML

CSS

PowerBI

Tableau

## HONORS & AWARDS



**2021**

GM CIO award for AI/ML backed application for text annotation (S<sup>2</sup>MART)



**2019**

First place in Data n Analytic (DnA) challenge (who is the driver) of GM among 35 applicants



**2016**

Extraordinary performance/effort award, Ford Motor Company



**2015, 2016**

outstanding teaching assistant award, Wayne State University for 2 consecutive years