Alaa Alghwiri
DATA SCIENTIST - UNIVERSITY OF AKRON TRANSPORTATION DEPARTMENT

Cuyahoga Falls, OH - Email me on Indeed: indeed.com/r/Alaa-Alghwiri/846551a0e5ce7445

Data Scientist and Discrete Event Simulation professional with a Ph.D. in Industrial Engineering (GPA
[…] 8 years' experience working with multi-disciplinary groups in a highly reliable environment.
Extensive records in utilizing statistical and data mining techniques in data analytics. Development and
deployment of applied predictive and prescriptive analytics to optimize robust and scalable models for
Engineering Processes/Services. Looking to bring a proven track record of problem-solving, critical
decision support, optimization, and forecasting to a vibrant team.
Willing to relocate: Anywhere
Sponsorship required to work in the US

WORK EXPERIENCE

DATA SCIENTIST
UNIVERSITY OF AKRON TRANSPORTATION DEPARTMENT - January 2013 to Present

Analyzing diverse sets of transportation data in order to identify patterns and develop valid
predictive models and insights using advanced statistical techniques.
• Developing and applying machine learning methodologies (Design of Experiment, Regression, and
Classification trees etc.) to help understand and solve complex problems.
• Leveraging statistical techniques in combination with optimization approaches to establishing
operating guidelines and recommendations for transportation processes.
• Forecasting transportation system demands and traffic variations using Time Series Analysis.
• Developing a valid Discrete Event Simulation models to mimic the stochastic process of the transportation
environment and perform problem-solving, critical decision support, and
optimization.
Accomplishments
• Developed a predictive model using Discrete Event Simulation to analyze, evaluate,
optimize and improve the shuttle service in the University of Akron.
• Developed a complex stochastic model using Discrete Event Simulation to mimic the car
dynamics between 57 campus parking lots/decks, analyze the available resources, and improve the service
in the University of Akron.
• Published conference paper for (IISE conference May-2017): "Modeling and Optimizing
University Shuttle Bus System through Bus Diversion".
• Published conference paper for (IISE conference May-2017): "University Parking System
Analysis through Discrete Event Simulation".

PROJECT ENGINEER
MILLENNIUM ENERGY INDUSTRIES - August 2008 to August 2011

Supervised a team in the field of thermal Renewable Energy (Using evacuated Tubes Technology
and Grammar Solar) for the following applications:
• Central Hot Water for domestic and large scale projects
• Space Heating for domestic and large scale projects
• Swimming pool heating for domestic and large scale projects
• Grammar solar(Hot Air Collectors) for domestic applications

PROJECT ENGINEER
NOUR COMMUNICATION COMPANY - July 2007 to July 2008

Supervised a team in NOUR Communication Company in the following fields:
• Air conditioning Systems (Installation and Commissioning)
• Firefighting systems (Installation and Commissioning)
• Electrical Panels commissioning Such As MDB (Main Distribution Board), ATS (Automatic Transfer Switch) And Others (Installation and Commissioning)

EDUCATION

PHD in Industrial Engineering
UNIVERSITY OF AKRON
June 2017

MASTER in Industrial Engineering
UNIVERSITY OF AKRON
June 2014

BACHELOR in Mechanical Engineering
JORDAN UNIVERSITY OF SCIENCE AND TECHNOLOGY
January 2007

ADDITIONAL INFORMATION

• Advanced statistical modeling/visualization using R, JMP, and MINITAB
• Machine learning methodologies (Regression, Decision Tree and Classification Random Forest etc.)
• Advanced data mining techniques (Clustering using K-mean and Hierarchical, and Association rule)
• Optimization (DOE, Response Surface Methodology)
• Programming using R and JAVA
• Time series analysis using R (ARMA and ARIMA predictive models with Seasonality)
• Discrete event simulation for a complex stochastic processes (Professional)
• Lean and six sigma methodologies (ASQ_CSSGB)
• SQL basic scripts for analysis and reporting