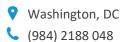
Muhammad Ali Haider



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Professional Summary

Python | Data Science & AI/ML | Statistics | Analytics | Operations Research | Mathematical & Computational Modeling | Supply Chain

Software Skills - Python, Tableau, SQL, C++, Java, CPLEX, MATLAB, Excel

	Software Skills - Fytholi, Tableau, SQL, C++, Java, CFLEA, MATLAB, Excel
Work experience	
5/2021 – Present	Data Scientist, Afiniti – Washington, DC Build, train and test Afinit's artificial intelligence model to identify valuable patterns of human interaction to pair individuals on the basis of behavior, leading to more successful interactions and measurable increases in enterprise profitability.
8/2020 – 5/2021	Data Scientist, HTN Networks Inc (Cisco Partner) – Irvine, CA Build AI and mathematical models to optimize internet traffic routing and identify malicious traffic.
6/2018 – 7/2018	Data Science intern, Rafay Systems - Sunnyvale, CA
	Mathematically modeled the problem as a dynamic programming optimization algorithm to maximize the server utilization for a Silicon Valley Edge Computing Startup.
1/2018 – 5/2018	Grad Consultant, MUFG Bank – New York, NY - Utilized advanced analytics and data visualizations tools to achieve supplier consolidation - Developed a hierarchy of KPIs that helped the bank in making more informed decisions.
8/2017 – 1/2018	Graduate Research Assistant- Computational Lab, NC State University - Raleigh, NC Computational modeling of environmental footprints across various levels of the supply chain.
9/2015 – 5/2017	Engineering lab Assistant – Istanbul Sehir University - Istanbul, Turkey Course: ISE 521 Introduction to Operation Research and Industrial Engineering Topics.
	Grading and helping students to solve and debug assignments in C++ and Python.
6/2014 – 9/2015	Supply Chain Officer, Lucky Cement Limited - Karachi, Pakistan
	Reduce overall procurement lead time by coordination of inventory, logistics and suppliers.
Recent Projects	
1/2021 – 3/2021	Multi-Variat forecast of stock prices using LSTM
	Developed a stock trading model that multi variate LSTM forecasting to predict the future ups and downs of stock price and take decision accordingly. https://bit.ly/39mBnbw
1/2020 – 5/2020	Computer Vision: Grocery item classifier
	Developed a classifier model based on pretrained VGG-16 model and CNN layers to distinguish 2 grocery store products. The model achieved 90% accuracy on the unseen data. GitHub https://bit.ly/3rqad9G
6/2020 – 12/2020	Natural Language Processing: A chatbot that is wise.
	Trained the model on 700 quotations from diversified domains (phycology, relationships, spirituality, etc.). The bot will give satisfactory answer to 80% of your hard questions by matchin it with relevant quotations. Try it here http://www.thebhalol.com/
7/2020 – 11/2020	A Generative Adversarial Network (GAN)
	Implemented Cycle GANs for data augmentation for a computer vision project. Number of images were doubled, and the generated data improved the model performance by 10%.
3/2020 – 6/2020	Intrusion Detection: Identifying malicious internet traffic.
	Identified network intrusion with F1 score of 0.997, using exploratory data analysis, feature engineering, and machine learning. Github link https://bit.ly/3mmUBD6
8/2019 – 12/2019	Natural Language Processing: Quora Insincere question classification

	Identify and flag insincere questions using LSTM, CNN and GRU. GitHub http://rb.gy/tlhia1
8/2019 – 12/2019	Deep Learning: Prediction of Battery Life for NASA's Small Electric Aircraft
	A research project that aimed at predicting reaming battery life using SVM, Random forest and deep learning on 4 million entry data from 9 sensors. GitHub Link http://rb.gy/jfkhgz
7/2019 – 12/2019	Capacitated vehicle routing optimization: for Electric delivery truck
	Delivery trucks were subjected to capacity and battery charge life constraints that had to satisfy demands from 155 customers per day with time window constraints. The problem was formulated and solved using google OR Tools. Github Link https://bit.ly/3df6bfh
1/2019 – 5/2019	Aircraft Maintenance scheduling optimization
	Optimized aircrafts maintenance schedule using Mixed Integer Linear programing (MILP) by

Publications

Master thesis tile "The Assessment and Integration of Material Footprint in National Energy Development Plans". Diss. 2017.

CPLEX. GitHub link http://rb.gy/tpgmx1

Kucukvar, M., Haider, M.A. and Onat, N.C., 2017. Exploring the material footprints of national electricity production scenarios until 2050: the case for Turkey and UK. Resources, Conservation and Recycling, 125, pp.251-263.

Kucukvar M., Onat, NC, Haider, MA. "Scarce Resource-dependence of the European Electricity Production Scenarios until 2050" The International Symposium on Sustainable Systems and Technology (ISSST), May 16-18, 2016, Phoenix, Arizona, USA

Kucukvar, M., Onat, N.C., Haider, M.A. and Shaikh, M.A., 2017. A global multiregional life cycle sustainability assessment of national energy production scenarios until 2050. In International Conference on Industrial Engineering and Operations Management Bogota.

First author and presenter At SPE International Intelligent Energy Conference, UAE 2013, SPE, the paper titled "Intelligent integrated management for new ventures in high risk developing countries" ISBN 978-1-61399-276-0. An energy sector firm's Supply chain KPI were developed using the Supply Chain Operation Reference Model (SCOR) model

Onat, NC, Haider, MA, Kucukvar M, "Material Dependence of National Electricity Generation Plans: The Case for Turkey and United Kingdom", Journal of Cleaner Production, 2017

Sen B, Kucukvar M., Onat, NC, Haider, MA, "Material Footprint of Alternative Fuel Vehicles: A Multi-Regional Input-Output Life Cycle Assessment", The journal of Energy and Environmental sciences, 2016.

Onat, N.C., Kucukvar, M., Toufani, P. and Haider, M.A., Carbon Footprint Analysis of Electric Taxis in Istanbul. 2017

Design of Supply Chain at Amreli steels limited and the study of the Supply Chain Operation Reference Model (SCOR, 2013- NED University Undergrad final project

Honors and awards

North Carolina State University PhD Fellowship award, 2017
President and Founder of the Entrepreneur Society NED University, 2013. www.nedentrepreneurshipsociety.com

Educational Background

2020	Master's - Operations Research - North Carolina State University, USA
2017	Master's - Industrial & System Engineering - İstanbul Şehir Üniversitesi, Turkey
2013	Bachelors - Industrial and Manufacturing - NED University of Eng. and Tech, Pakistan