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Ammar Rehan

Electrical Engineer | Data Scientist | Developer

Electrical Engineer with experience in consulting, research, project management and new product development in IT industry. 365DataScience-certified Data Scientist with extensive GitHub portfolio. Life-long learner. Eager to use data interpreting, predictive analysis and data visualization skills to cut costs, boost sales and drive growth.

# SKILLS

# Languages: Python, R, SQL, C/C#/C++, Excel VBA, Assembly, System Verilog, JavaScript

# Software: MS Office, MySQL, GitHub, AutoCAD, SolidWorks, MATLAB, Linux, Ansys HFSS, Simulink, MS Azure, Arduino, Microsoft Power Apps

# Data Science: Data Preprocessing, Exploratory Data Analysis, Data Visualization, Statistics, Regression, Clustering, Artificial Neural Networks, Convolutional Neural Networks, Reinforcement Learning, Dimensionality Reduction, Boosting, NLP, Computer Vision, Power BI, Tableau

# EDUCATION

**The University of British Columbia, Vancouver** **Sept 2015 – May 2020**

*Bachelor of Applied Science in Electrical Engineering*

* **Specializations:** Antennas and Propagation (93%), Optimization of Power System Operation (84%), Control Systems (81%)
* Awarded Outstanding International Student Award worth $10000.
* Awarded Chancellors Scholar Award.

# RELEVANT WORK EXPERIENCE

# Consulting IoT Engineer, TECHPOS International Corp- Vancouver, BC Sept 2019- May 2020

* As wireless communication lead, developed and implemented a wireless communication framework based on request-response protocol for end-to-edge communication using Python and ZigBee.
* Automated end-to-edge data upload using Python and edge-to-cloud data upload using Azure IoT Hub. Used PowerBI for data visualization.
* As project management lead, used agile software development methodology and Power Apps for project portfolio management.
* Developed multiple prototype devices using 3D modelling software and conducted prototype testing.

# Research Assistant, Center for Flexible Electronics and Textiles, UBC- Vancouver, BC Jun - Aug 2019

* Developed 2D solar cells by stacking isolated monolayers of 2D materials like Graphene, Molybdenum Disulfide and Tungsten Diselenide.
* Designed and implemented a data collection and management process that resulted in increased collaboration between research assistants, reduced data loss exponentially and boosted productivity by over 300%.
* Co-developed python script to remotely control linear DC servo-motors for accurate microscope analysis and monolayer stacking resulting in increased productivity.

# OTHER WORK EXPERIENCE

# Student Advisor, UBC Radio Science Lab- Vancouver, BC Oct - Dec 2019

Advised on Wi-fi Backhaul expansion for adding new nodes into the Aurora testbed by designing links to backhaul mesh access points.

# Line Cook, The Sylvia Hotel and Restaurant- Vancouver, BC Aug 2017- Jan 2018

Refined closing protocol, resulting in 30% faster closing times.

# Project Management Intern, Hewlett Packard- Vancouver, BC Jun - Aug 2014

Assisted project manager in conducting risk analysis, drafting statement of work and risk registry and in creating Gantt Charts using online tools for cloud computing project.

**Interests:** Backpacking, Trading/Investing, Hobby-coding, Cricket, Reading, Cooking, Blogging