Siddhant Khera

647-333-9899 | sid@siddhantkhera.com | siddhantkhera.ca

EDUCATION

University at Buffalo
The State University of New York

B.Sc in Electrical Engineering
Minor in Mathematics
June 2020 | Buffalo, NY
Major: GPA: 3.83 / 4.00
Minor GPA: 3.60 / 4.00

Honors
Dean's List (2017, 2019)
Cum Laude (2020)
Final 2 Semesters GPA: 4.0/4.0

LINKS

/siddhant-k
/siddhant-k
siddhantkhera.ca

CERTIFICATIONS

Engineer-in-Training (EIT):
Expected Nov 2020 (Ontario)

SKILLS

Programming
C • LaTeX • Python • MATLAB • HDL • SQL

Drafting Programs
Xilinx Vivado • NI MultiSIM • LTSpice • Power World • Fusion360 • EasyEDA

Data
Data Guru • Microsoft Excel • Tableau • Supply Chain Guru

Linux
Linux Admin • Docker • Git • Shell • Bash • Nginx

OTHER PROJECTS

Frogger Game in C • Optimizing Production Flows for Maximum Output Efficiency • In-Depth Visualization of North-American Reefer Transportation Rates in Tableau • LED Matrix Graduation Cap • Indoor Weather Station Integration with IoT Platforms

EXPERIENCE

NETWORK DESIGN INTERN | Rich Products
Jan 2020 - May 2020 | Buffalo, NY

- Utilized Linear Programming optimization to maximize production and minimize costs in the US/Canada Supply Chain Network of over 25,000 SKUs using Supply Chain Guru X.
- Proactively enhanced production flows to recommend savings of over $50K, by using ETL tools and Tableau to present findings to the stakeholders.
- Blended data & visualized comparison of transportation costs across 4 providers in Tableau, proposed savings of over $100K in the network.

ENGINEERING INNOVATION INTERN | University at Buffalo
May 2019 – Jan 2020 | Buffalo, NY

- Designed and created an integration in Python for Crestron Fusion DMPS-300-C, Alexa, & RFID tags using a Raspberry Pi and Amazon Web Services (AWS) to deliver a personalized media room experience.
- Architected & maintained the full hardware/software integration back-end scalable to 50 users.
- Configured Amazon Lex & IBM Watson to control the media rooms via chat.
- Researched cases for developing university-scale applications for applying Artificial Intelligence/Machine Learning tech in future services and projects.
- Actively used Agile methodology to complete the project within 6 months.

SENIOR IT SUPERVISOR | University at Buffalo IT
April 2018 – Jan 2020 | Buffalo, NY

- Led & successfully automated data analytics for 18 million print jobs at 9 printing locations to empirically predict usage and wear on the systems.
- Mentored a team of 100+ Level 1 and Level 2 staff that provided computing & printing services and successful customer service to 30,000+ students.
- Independently managed the SQL DB, front-end & application admin support to over 300 users.
- Devised and implemented new techniques to generate & maintain weekly schedules of over 125 employees, doubling the original system capacity.

PROJECTS

xylem SOLAR ENERGY HARVESTER FOR A WATER METER
Senior Design Project, Company Sponsored

- Developed a custom solution using solar power to harvest energy and provide up to 30 days battery storage at 5mW peak output to the load.
- Designed a custom PCB that resulted in a 73% smaller enclosure and $500K savings for 5M units, while exceeding most original requirements set by the company by at least 100%.

XILINX AUDIO/VIDEO JUKEBOX VIA HDMI IN VHDL

- Programmed a Jukebox on a Zybo Z7 ARM/FPGA SoC Dev Board, with 3 songs, pause/stop functionality, 2 pause screens and 3 playing modes — all selectable by the user.

PRELIMINARY DESIGN FOR ADDING A 200MW WIND FARM

- Added a 200MW Wind Farm (theoretically) to an existing system by choosing appropriate Conductor Types, Tower Designs and Right-of-Ways and reduced existing system losses by 10%, resulting in hypothetical savings of $650K of maintaining the grid.