Jude D'Souza

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Education

Ryerson University—Bachelor of Engineering (Electrical Engineering Co-op)   April 2021

Skills

Languages: Python, JavaScript, MATLAB, Java, C, HTML, CSS
Technologies/Tools: Git, React, Flask, Bootstrap, SQL, PostgreSQL, LTspice, Simulink, Excel, VBA, Word, PowerPoint

Work Experience

Bus Engineering and Quality Assurance Intern | Metrolinx   August 2019 – August 2020

- Analyzed bus ridership metrics during the COVID-19 pandemic with Python to optimize efficiency of routes resulting in a 10% reduction of fuel
- Worked with Bus Engineering department to organize incoming buses and create and edit SOPs
- Used Excel and VBA to process warranty claims and increase part optimization which resulted in cost saving measures and quality assurance
- Tracked monthly fuel, ridership and bus warranty KPI metrics and ensured monthly totals were reached
- Utilized Safety Vision software to process AVRS requests with a 98.7% successful retrieval rate

Summer Engineering Student | Kinectrics   May 2018 – August 2018

- Worked with Kinectrics Reverse Engineering Team to improve on energy and cost saving projects
- Collaborated with engineers and technicians to complete reports including Manufacturer Test Reports, Part Specific Reports, Inspection and Test Plans, Design Reviews and Meeting Minutes based on technical specifications
- Coordinated with clients and lead engineers on their projects to meet design specifications and business timelines following ISO 9001 quality management

Postal Clerk | Shoppers Drugs Mart   June 2017 – August 2017

- Responsible for receiving, sorting and outgoing mail services
- Strong customer engagement related to inquiries and complaints regarding postal service
- Handled cash processes including the selling of Money Orders and maintained RPO inventory

Member | Hobby Electronics Club   November 2016 – May 2021

- Worked with hardware and software components to build several projects including a photo resistor triggered musical staircase, an audio amplifier and DC motor powered car
- Created image filters with Jupyter notebook, Scikit-image and Python

Projects

Transactive Energy Modules for Smart Loads with Storage

- Created a web-app to help companies lower their total yearly energy cost by utilizing extra storage through linear optimization with Pandas, NumPy and Python
- Designed and implemented front-end interactive charts and tables with Chart.Js, Bootstrap and Flask

Multicast Overlay Network

- Developed a Multicast Overlay Network with Python utilizing UDP connections between node sockets
- Used Dijkstra Algorithm to solve for the shortest link cost from the receiving to source nodes

Team Fight Tactics Composition Predictor

- Creating a tool to help display relevant TFT units based on the user's current board
- Implementing draggable and droppable components with ReactJs and Redux

Custom Mechanical Keyboards

- Built several mechanical keyboards which included ordering parts, soldering switches to the pcb, programming and flashing the layout and assembling the keyboards