

# Jude D'Souza

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## Education

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

April 2021

## Skills

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**Languages:** HTML, CSS, JavaScript, Python, MATLAB, Java, C

**Technologies/Tools:** Git, Bootstrap, React, Flask, LTspice, Simulink, PostgreSQL, Excel, VBA

## Work Experience

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### Bus Engineering and Quality Assurance Intern | Metrolinx

August 2019 – August 2020

- Analyzed bus riderships metrics during the coronavirus pandemic with Python to increase efficiency of unoptimized 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 cost saving measures and quality assurance
- 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 focus 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 – Present

- 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

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### 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 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 users 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