Available to start in May - Sep 2020

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Kerim Sertturk

Work Experience

May 2018 - Aug 2019 **Reliability Data Analyst (Co-op)**, *Hydro One Networks*, Toronto, ON.

- Developed an application with a Graphical User Interface using Python to extract reliability data from an Oracle database, decreasing the time the process took by 85% thus replacing the old tool
- Initiated an exploratory project using Python's Selenium package to scrap data from Environment Canada's website and map weather conditions to line outages based on proximity
- Wrangled various databases to obtain GPS information of Hydro One stations and utilized Tableau to create interactive maps visualizing stations' reliability performance
- Lead a power system analysis and data management project to identify interruptions affecting generators in Ontario, ultimately building a database utilized for various reliability studies
- Produced formal reliability performance reports for large customer such as Toronto Hydro and Alectra

June 2017 - July 2017 **Human Machine Interface R&D Intern**, *Arcelik A.S.*, Istanbul, Turkey.

Applied MATLAB and Python algorithms to correct optical distortion as part of a larger project to integrate computer vision into appliance design and manufacturing

June 2013 - July 2013 **Energy Trade Analyst**, *Karadeniz Energy Group*, Istanbul, Turkey.

- Conducted cost/benefit analysis for a 20 MW solar power station as a potential future investment.
- Organized correspondence for the delivery of a 203 MW power generating barge, which resulted in a successful contract with ongoing revenue since 2013.

Capstone Project

Sep 2019 - Present **Automating cryo-EM Particle Picking with Machine Learning to Accelerate Drug Research**.

Developing a Machine Learning pipeline to process Electron Microscopy images of cancer cells and classify the good protein particles from junk to automate the particle picking process, and ultimately improve the quality of 3D molecule structures which are used in designing cancer drugs.
Current work includes: Convolutional Neural Networks, Object Detection (R-CNN, YOLO), Segmentation

Education

Sep 2014 - May 2020 **University of British Columbia**, *BAppSc Electrical Engineering*, Minor in Political Science.

International Leader of Tomorrow Award: distinct scholarship within UBC covering all tuition expenses

Skills

Technical & Certificates: Python [TensorFlow, PyTorch, PyQt, OpenCV], SQL, MS Office, R, Scala, LaTeX, Git, Functional Programming Principles in Scala (Coursera), Developing SQL Databases (edX)

Activities and Interests

Sailing, Martial Arts, Psychology, Political Science