Available to start in May - Sep 2020

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Kerim Sertturk

Work Experience

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

- Developed an application with a user interface using Python's PyQt package to extract and analyze reliability performance data, decreasing the time the process took by 85%
- Initiated an exploratory project using Python's Selenium package to scrap data from Environment Canada's website to obtain weather conditions in proximity to line outages.
- 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.

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 Intern**, *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 objects to automate the particle picking process, and ultimately improve the quality of 3D molecule structures which are used in drug research.
Current work includes: Neural Networks, Object Detection (R-CNNs, YOLO), Semantic 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
Coursework: Power System Analysis, Energy Systems, Machine Learning, Signals & System

Technical Skills

Programming & Tools: Python [TensorFlow, PyTorch, PyQt, OpenCV, Selenium], LaTeX, Git, SQL, MS Office
Verilog, Assembly, SolidWorks, Microcontrollers, 3D Printer

Activities and Interests

Sailing, Martial Arts, Psychology, Political Science