

Olha Wloch

4A Combinatorics & Optimization

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SKILLS

Programming Languages – Python, C++, C, R, Matlab, Bash

Python Packages – NumPy, SciPy, scikit-learn, matplotlib, pandas, TensorFlow, Keras

Tools & Applications – Git, Microsoft Office, Jira

Creative Problem-Solving – Refined at ABR as a result of regularly working on model evaluation and improvement, as well as debugging problems.

Oral and Written Communication – Improved through team collaboration at Curv Health and presenting research findings to portfolio managers at CPPIB.

EXPERIENCE

Deep Learning Application Developer, Applied Brain Research, Waterloo, Ontario

January 2021 - April 2021

- Developed network architectures of recurrent neural networks for time-series modelling in the context of signal classification and lifelong learning capabilities.
- Improved on model results through regular model training, evaluation, and hyperparameter optimization processes such as NNI searches.
- Independently designed and reported to clients on a model performing lifelong learning capabilities, from data preprocessing and validation, to model evaluation and deliverable report writing. Achieved a validation accuracy of 97%.

Machine Learning Intern, Curv Health, Halifax, N.S.

May 2020 - August 2020

- Used computer vision technology to detect and analyze human motion in the form of physical exercises using pose estimation and signal processing. Developed algorithms in Python that have been deployed to the mobile application.
- Contributed to improvements in machine learning inference accuracy through research, pipeline refactoring, and various post-processing approaches.

Data Engineering Analyst, Omnia AI - Deloitte, Toronto, Ontario

September 2019 - December 2019

- Assisted in the development of a cybersecurity platform using SIEM and UEBA logic for a Deloitte client. Created rules for the anomaly detection algorithms through security analytics and wrote user and system stories.
- Developed Image Character Recognition models for the blueprints of an oil and gas client using Python and Google Cloud Vision and determined the precision and recall in comparison to ground truth.

Intern Analyst, Canada Pension Plan Investment Board, Toronto, Ontario

May 2018 - August 2018

- Provided statistical analysis and dataset modelling relating to climate change and energy transition using Python and Excel for the Economic and Financial Forecasting Team for the creation of a Country Climate Risk Index from an investment perspective.
- Assisted in monitoring the progress of CPPIB's Investment Portfolio; expanded knowledge of investment, capital markets, and asset allocation while working in Total Portfolio Management.

PROJECTS

CCLC – C++ Command Line Chess (<https://github.com/olhawloch/CCLC.git>)

July 2019 – August 2019

- A program that allows for a game of chess to be played against both human and computer players.
- Written using an object-oriented paradigm and design patterns (such as factory and strategy) to tackle common software problems.

EDUCATION

University of Waterloo

September 2017 – April 2022 (Expected)

- 4th Year Candidate for a Bachelor of Mathematics, Honours Mathematics, Major in Combinatorics and Optimization with Co-op.

ACTIVITIES & INTERESTS

- Gardening, rock climbing, Ukrainian and Guitar Hero.