Axel Bogos

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EDUCATION

Université de Montréal - Affiliated with MILA — **Montreal, QC**
MSc in Computer Science - Specialization in Machine Learning — *Expected Graduation: May 2023*

Concordia University — **Montreal, QC**
Honours BSc in Computer Science - Project Supervisor: Leila Kosseim - GPA: 4.02/4.3 — *2018-2021*

Dawson College — **Montreal, QC**
DEC Pure and Applied Sciences - Average: 91% — *2014-2017*

EXPERIENCE

Smart Trade — **Tokyo, JP**
Software Developer Intern — *Feb 2020 - April 2020*

- Developed and distributed currency trading algorithms in C++ for Japanese and international clients.
- Achieved a 160% return rate over 3 years of historical financial data.
- Provided support for the MT4 platform to internal developers and clients.

IMDS Software — **Montreal, QC**
Analyst Programmer Intern — *May 2019 – Aug 2019*

- Developed customized image processing software in C++ to extract and analyze facial and textual data from large volumes (200,000+) of documents synchronized with large MySQL databases.
- Implemented a dataset validation tool in C++ and Python to improve facial recognition training datasets.
- Provided software and hardware support to internal and external users.

PROJECTS

Few-Shots Learning on CIFAR-10 [Report] — *February 2021 - May 2021*

- As part of 2 challenges in the context of a deep-learning class, a literature review of the current landscape of few-shots learning methods was conducted.
- 2 models were proposed, one trained without access to external data beyond CIFAR-10 and one with transfer learning. Both models improved on the at-the-time ratio of model parameters and accuracy.

Fake News Classification [Report] — *October 2020 - December 2020*

- Conducted a performance analysis of different models and word embeddings on fake news classification.
- bi-LSTM and ELECTRA transformer models were used to achieve an 85% accuracy rate in classifying articles from the NELA-GT-2019 dataset.

Reading Comprehension using Transformers Architecture [Report] — *September 2020 - December 2020*

- As part of a project supervised by Dr. Leila Kosseim and Sem-Eval 2021, a Bidirectional Encoder Representations from Transformers (BERT) model was used to evaluate the reading comprehension and understanding of abstract meaning in natural language text passages through multiple-choice answers. A 50% accuracy rate (given 5 multiple choices) was achieved.

OtherIndeed [Repository] — *July-August 2020*

- Developed a full job posting and application website synchronized with a MySQL database in PHP, HTML, CSS and Javascript.

ADDITIONAL

- Relevant Coursework: Deep Learning, Machine Learning, Artificial Intelligence, Data Structures & Algorithms, Combinatorics, Data Analytics, Operating Systems, Probabilities & Statistics, Numerical Methods, OOP II.
- Concordia's Dean's List (2018, 2019, 2020)
- Recipient of the 15,000$ Knowledge-First Entrance Scholarship.
- Programming Languages: Python, Java, C++, PHP, JavaScript, SQL
- Spoken Languages: native/near-native level in French and English. HSK1 level in Mandarin Chinese. Notions in Japanese.