LUCIA EVE BERGER

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EXPERIENCE	

College Champlain St. Lambert — *Computer Science Instructor*   Montreal, 09/20 – present
· Responsible for teaching Object Oriented Programming (Java) and IT Fundamentals.

McGill University — *Researcher & Developer with Environment Canada*   Montreal, 06/20 – present
· Designed and implemented a reliable Machine Learning pipeline using streaming twitter data.
· Deliverables include an API and dashboard that digest, classify and geo-locate tweets in near real-time.

Nuance Communication — *Research Scientist*   Montreal, 09/19 – 07/20
· Implemented and tested algorithms for detecting voiced segments for NLP.
· Developed a custom acoustic estimator using a CNN and LSTM Model. A key accomplishment was optimising the training and testing pipeline for lower runtime.
· Achieved improved performance over internal baselines under difficult noise conditions and across languages. Classifer acheived 10% higher accuracy with a smaller context window.

Fraunhofer Institute for Experimental Software Engineering — *Researcher*   Berlin, 08/18 – 09/19
· Developed a framework for quantifying uncertainty in Traffic Sign Recognition.
· Analysed diverse datasets with principle component analysis and applied relevant augmentations capturing real-life conditions.
· Conducted classification and regression tasks on these structured and unstructured data with decision trees and CNNs.

German Institute for AI (DFKI) & Siemens — *Graduate Research Assistant*   Berlin, 01/17 – 09/18
· Implemented and tested an application with multiple integration points in Java.
· Constructed and tested a REST API for monitoring, grouping and warehousing sensor data for real-time use by subsystems.
· Improved the querying, aggregation and stand alone micro-services with the goal of improved visualizations to meet customer specifications.

General Electric Canada — *Software Engineer*   Montreal, 05/15 – 11/16
· Participant in the EEDP (Edison Engineering Development Program), a corporate rotational program focused on developing technical excellence. Selected as 1/200 candidates.
· Developed new features to increase the dependability of light monitoring systems with python and swift for mobile applications.

RESEARCH, PROJECTS & AWARDS	

Rosedale Academy: *Grade 12 Computer Science curriculum development (110 hours)*   05/20
Adventures in AI Curriculum Development: *Python course for 8 to 12s. (50 hours)*   02/20
NVIDIA GPU optimization: *40 hours certificate on use of GPUs for deep learning.*   03/19
APEX Startup 3rd place, 1000 CAD: *node.js, gamification, MEAN stack.*   05/15
Pratt & Whitney: *8 month engineering internship, QA, usability testing.*   01/15

EDUCATION	

Quebec Artificial Intelligence Institute (MILA) & University of Montreal   Montreal
Specialized Master and Fellowship in Machine Learning   09/20 – 01/22 (expected)
· *RBC future launch scholarship recipient, full-funding.*

TU Berlin, TU Kaiserslautern & FU Bozen   Berlin & Bozen
Joint Master in Software Engineering & Computer Science   08/19
· GPA: 3.8/4 (95%), EU scholarship: €48,000/2 years, admission rank: 1/1200.
· *Machine & Deep Learning, Robotics, Data Mining & Visualization, Statistical Methods*

McGill University   Montreal
Bachelor in Computer Science & Economics, 8 month exchange in Mexico.   05/15

SKILLS	

Coding: python, java *familiar:* C/C++, ruby.
Web: HTML, CSS, javascript (angular.js, react.js, node.js, express.js), django, flask.
ML/DL: pandas, numpy, sklearn, *familiar:* keras, scikit, tensorflow.
Data Processing: SQL, noSQL, postgres, data mining, visualization *familiar:* AWS.
Languages: English, French (C1), Spanish (C1), German (B2), Italian (A2).