LUCIA EVE BERGER

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EXPERIENCE

Nuance (Microsoft) — *Research Application Scientist* — Montreal, 09/19 – 06/20, 04/21 – present
- 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. Software achieved 10% higher accuracy with a smaller context window.

Champlain St. Lambert College — *Computer Science Instructor* — Montreal, 09/20 – present
- Responsible for teaching Object Oriented Programming (Java I, II) and Operating Systems.

McGill University — *Researcher & Developer with Environment Canada* — Montreal, 06/20 – 04/21
- 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.

German Institute for AI (DFKI) & Siemens — *Graduate Researcher* — Berlin, 01/17 – 09/19
- 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.
- Developed a framework for quantifying uncertainty in Traffic Sign Recognition at Fraunhofer IESE.
- Analysed diverse datasets and applied relevant augmentations capturing real-life conditions.
- Conducted classification and regression tasks on data with ML pipelines and models.

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 (D.E.S.S) — 09/20 – 01/22 (expected)
- *RBC future launch scholarship recipient, full-funding.*
- *Machine Learning and the Environment, Feature Representations, Project-based learning.*

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).