

Lucia Eve Berger

APPLIED MACHINE LEARNING & SOFTWARE ENGINEERING

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Work Experience

Microsoft (Nuance)

Montreal, Canada

RESEARCH APPLICATION SCIENTIST

Aug 2019 - July 2020, April. 2020 - current

- Programmed software for reliable end-to-end Automatic Speech Recognition
- Optimised pipelines to capture system metrics for shareholder's use. Tuned systems for better performance in cases of overlapped speech (30% improvement), multi-speaker conditions and different audio input.
- Developed a custom acoustic estimator and voice-activity classifier using deep learning. Tested recognition under difficult noise conditions, across languages and at lower latency
- Coded and deployed pipeline for measuring diarization and speaker error rate. Reviewed code and provided development support in python, lua, and java

Siemens Energy & German Institute for AI (DFKI)

Berlin, Germany

JUNIOR SOFTWARE ENGINEER

Jan. 2017 – Aug. 2019

- Constructed a java API for monitoring sensor data for real-time consumption.
- Enhanced the querying and aggregation of such data to meet customer specifications. Task included preparing datasets (clustered, augmented, analysed) for unsupervised learning tasks.
- Responsible for two interns, including reporting and delegation of tasks.

General Electric Canada

Montreal, Canada

SOFTWARE ENGINEER (EEDP)

May. 2015 - Nov. 2016

- Participant in the Edison Engineering Development Program (EEDP), a corporate rotational program focused on developing technical excellence. Selected out of 200 candidates and earned graduate credits in engineering disciplines.
- Built new features to increase the dependability of light monitoring systems (python, swift). Improved codebase and lighting prototype with micro-services, achieving a cost-savings of over 30%

Skills

Coding & Web	python, java, familiar: C/C++, ruby, lua, Web: HTML, CSS, javascript (angular.js, react.js, node.js, express.js), django, flask
ML/DL	pandas, numpy, sklearn, keras, scikit, tensorflow, pytorch, SQL, noSQL.
Languages	English (native), French (C1), Spanish (C1), German (B2), Italian (A2)

Projects & Awards

2020	Champlain College , 12-month instruction of Java I, II & Operating Systems at the CEGEP level.	Montreal, Canada
2020	McGill University , 8-month Research Project, flexible API that geo-located & visualized tweets.	Montreal, Canada
2015	Pratt & Whitney Canada , 8-month Undergraduate Engineering Coop: system requirements for QA.	Montreal, Canada
2022	SEMLA 2022 Poster , Refining a Data-Driven Model Uncertainty Framework with a Traffic Sign Recognition.	Montreal, Canada
2021	RBC Future Launch Scholarship , Two time recipient, awarded \$3000 for academic achievement	Montreal, Canada
2021	Teaching Review Finalist , Received 100% (Java) and 94.7% (Operating system) on student review.	Montreal, Canada
2017	Erasmus Mundus Full Scholarship , Awarded €48,000 for Master's degree, one of two winners	Bozen, Italy
2015	APEX Startup Competition Winner , Awarded \$1000 for energy gamification application.	Fredricton, Canada

Education

MILA (Quebec Artificial Intelligence Institute), University of Montreal

Montreal, Canada

D.E.S.S (SPECIALIZED MASTER DEGREE) IN MACHINE LEARNING

Sep. 2020 - Sep. 2023 (expected)

- Project mentor for Natural Language Understanding with Deep Learning, McGill University, GPA: 3.7/4.0.

TU Berlin, TU Kaiserslautern, FU Bozen

Berlin, Germany & Bozen, Italy

M.S. EUROPEAN JOINT MASTER DEGREE IN SOFTWARE ENGINEERING & COMPUTER SCIENCE

Aug. 2017 - Aug. 2019

- Admission rank: 1st of 1200 applicants. Thesis successfully defended with Fraunhofer IESE, GPA: 109/110 (99%. 4.0/4.0).

McGill University

Montreal, Canada

B.A. COMPUTER SCIENCE AND ECONOMICS

Sep. 2011 - May. 2015

- 8-month technical exchange in Universidad Auto de Guadalajara, Mexico.