

LUCIA EVE BERGER

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EXPERIENCE

MICROSOFT, RESEARCH SCIENTIST, MONTREAL

Aug. 2019 – current

GENERATIVE ARTIFICIAL INTELLIGENCE

- Engineered multi-modal, AI-powered (GPT, GPT-v) toolkits to aid end-users complete complex automations.
- Conducted research in prompt-engineering, image representation and validation of LLM output metrics.
- Lead responsible AI testing for team, reducing harms 30%.

AUTOMATIC SPEECH RECOGNITION (ASR)

- Adapted deep-learning models, accuracy gain of 5%.
- Implemented state-of-the-art techniques to reduce error, inference time and computation.

PROFESSIONAL

- Wrote and reviewed code in python, and java (10,000+ lines).
- Promoted from intern (Nuance) to Research Scientist (I, II) (2021, 2023)

SIEMENS & GERMAN INSTITUTE FOR ARTIFICIAL INTELLIGENCE, RESEARCH ENGINEER, BERLIN Jan. 2017 — July 2019

COMPUTER VISION

- Led implementation of a python framework for traffic-sign recognition, 10% improvement using deep learning.
- Expanded the software's capabilities, incorporating functionalities for weather forecasting and safety regressions.
- Constructed REST APIs for monitoring sensor data in real-time, meeting customer and latency specification.

GENERAL ELECTRIC, SOFTWARE ENGINEER, MONTREAL

May 2015 – Jan. 2017

SOFTWARE ENGINEERING

- Participated in the Edison Engineering Development Program, a two-year corporate rotational program.
- Partnered with diverse teams to gather requirements, design features and increase the dependability of light systems.
- Conducted topic modelling on an unstructured corpus, adding business value.

PROFESSIONAL

- Managed two interns including reporting and delegation of tasks and scheduling.
- Selected out of 200 applicants to receive engineering experience and graduate-level technical training.

PRATT AND WHITNEY CANADA, QUALITY ASSURANCE FULL TIME INTERNSHIP, MONTREAL

Aug. 2014 — Feb. 2015

TECHNICAL SKILLS

LANGUAGES: Java, Python, SQL, JavaScript. TOOLS: Tensorflow, Azure ML, Pandas, Git.

SPOKEN LANGUAGES: Native: English, C2: French, Spanish (Study Abroad: Mexico), B2 : German, A2: Italian.

EDUCATION

QUEBEC INSTITUTE FOR ARTIFICIAL INTELLIGENCE (MILA), UNIVERSITY OF MONTREAL (2024)

Canada

Specialized Master in Machine Learning (DESS) (3.65/4.0). Full Scholarship (\$3000/2 years).

ERASMUS MUNDUS JOINT DEGREE: TU BERLIN, TU KAISERSLAUTERN, FU BOZEN (2019)

Germany, Italy

Master in Software Engineering & Computer Science (4.0/4.0). First rank acceptance (1/1200). Full scholarship (\$48000).

MCGILL UNIVERSITY (2015)

Canada

Bachelor in Computer Science & Economics. Entrance with full-year of AP credits (Lexington High School, MA).

RECENT MACHINE LEARNING PROJECTS

ACOUSTICS WEEK CANADA PUBLICATION (2023): Authored ASR adaptation to regional French and dysphonic speech.

SOFTWARE ENGINEERING FOR MACHINE LEARNING (2022): Delivered poster on ML safety with Computer Vision.

EUROPEAN CONFERENCE ON SIGNAL PROCESSING (2021): Authored speech estimation paper using CNNs/RNNs.

SELF-SUPERVISION FEASIBILITY OF CLOUDCAST (2021): Built project on video interpolation for cloud cast prediction.

COMPUTER SCIENCE EDUCATION

CHAMPLAIN COLLEGE (2020-2021): Taught Java, Java II and Operating Systems at CEGEP. Received 99% review.