

MAAZ M.

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EDUCATION

- University of Toronto**, Ph.D. in Operations Research (jointly with MD) *Current*
Courses: Real Analysis, Deep Learning, Automated Reasoning, Reinforcement Learning
GPA: 4.0/4.0
Awards: Vanier Scholarship (\$150,000) – given to 55 top PhD students in Canada
- McMaster University**, B.H.Sc. in Health Sciences (minor in Economics) *June 2020*
GPA: 3.96/4.00 (summa cum laude)

EXPERIENCE

- MIT Sloan School of Management** Feb 2024 - Jul 2024
Visiting Researcher *Cambridge, MA*
- Developing multimodal artificial intelligence for healthcare with Prof Dimitris Bertsimas
- Amazon** Jun 2022 - Sep 2022
Applied Scientist (intern) *Toronto, ON*
- Spearheaded development of an outlier detection system for NLP data at Amazon Alexa, leveraging a CNN model in Keras/Tensorflow to achieve a **5-fold reduction in false positives** compared to the current production model
 - Devised a novel unsupervised performance estimation technique, which yielded a **75% reduction in error** compared to state-of-the-art methods in experiments
 - Discovered new theoretical results on orderings of probability vectors and their connection to estimating machine learning model performance, which resulted in a publication

SELECTED PUBLICATIONS

- Cost effectiveness of drones for cardiac arrest response.* Submitted.
- Siamese Graph Neural Networks for Drug Discovery.* Poster at MoML 2023, Mila - Quebec AI Institute.
- On orderings of probability vectors and unsupervised performance estimation.* IJCAI 2023, GLOW Workshop. arxiv:2306.10160

PROJECTS

Xtract (www.xtrct.app)

- Created app to automate medical literature reviews using React frontend and Python backend
- Uses combination of semantic search, with fast vector search, and large language model (LLM) summarization
- Very positive response: used in many research groups at UToronto

pasteOCR ([link](#))

- Created a plugin for the widely-used flashcard program Anki that automatically converts lecture slides to flashcards, streamlining card making workflows
- Developed the plugin from scratch using Python, integrating Google's Tesseract OCR engine to ensure accuracy
- Achieved over **1,000 downloads** and maintained a perfect **100% positive review** rating from users worldwide, attesting to the plugin's effectiveness and ease of use

SKILLS

Python (pandas, scikit-learn, PyTorch, Tensorflow, Keras) • R (tidyverse, ggplot2) • Javascript (React) • Java

PERSONAL INTERESTS

Competitive powerlifter for 7+ years (460lb/315lb/225lb max on deadlift/squat/bench)