

AMIR RAZA

website: <https://amir9ume.github.io/blog/>

(+1)514 604 3948 ♦ . ♦ amir9ume@gmail.com ♦ . ♦ [my github projects](#)

EDUCATION

MILA / Universite de Montreal -Montreal,QC

January 2019 - August 2021 expected

Masters Research based,Computer Science, Artificial Intelligence

Indian Institute of Technology (IIT), Roorkee- India

July 2011 - June 2015

Bachelor of Technology, Mechanical Engineering.

CGPA: 7.54/10

Ranked 1803 out of 400k applicants. IIT entrance examination

SUMMARY

My recent focus areas have been deep learning, transformer based models, and devising Self Supervised approaches for fine tuning. Experienced with probabilistic models. Applied my ML skill sets to NLP and Recommendation problems.

SKILLS

Machine Learning	Self Supervision, Probabilistic Models, Transformer models, Attention, Topic Model
ML Tools	Pytorch, HuggingFace, Scikit-learn, Pandas, Numpy, Optuna, Gensim, Nltk, Dask
SDE Tools	REST API, Python, Bash, UNIX, Java, Wandb, Spark, SQL, Git

WORK EXPERIENCE

MILA / Universite de Montreal, Montreal, Canada

August 2019- August 2021

Graduate Research Assistant, 2 years

- **Research Topic:** Automating Recommendation of peer reviewers for conferences.
- Researched and developed text representation methods for published text corpus of researchers. Experienced with BOW, LDA, and Deep learning approaches. Utilized learned text representations for a recommendation model, to predict reviewer expertise scores.
- Designed methods for Self Supervised finetuning for Transformer (Bert) models, with better semantic understanding. Developed augmentations to ease Contrastive loss objectives for SimCLR and BYOL frameworks.
- **Scientific Research Assistant** - Designed questions for [Recommendation systems MOOC launched on edX](#) by Universite de Montreal. Concepts include ranking models, evaluations, fairness.

Next Education India Ltd, Hyderabad, India

October 2016- August 2018

Research and Development Engineer, ML team, 2 years

- Adaptive Tutoring System. Developed the project end to end, choosing the model, data tables, and integration with the Front end. Designed and implemented a Probabilistic Model to find out the knowledge level of school kids. User modeling of kids using Maximum Likelihood Estimation.
- Built REST APIs, to train the model on school datasets. Utilized Java spring, SQL, Spark, R.

Flipkart Internet Pvt Ltd, Bangalore, India

July 2015- October 2016

Business Analyst, 1.3 years

- Demand Planning team: Querying and analyzing data around User Page visits, Sales, Revenue.

Github Projects: Variational Autoencoder with IWAE reparametrization [link](#),

Continual Learning with Un-certainty based Regularization [link](#)

Expectation Maximization algorithm for Gaussian Mixture models [link](#)

Crawled dataset for low resource language, content based recommendation [link](#)

Scholarships: Recipient of International student Tuition Fees exemption, Universite de Montreal.

Languages: English, Hindi/Urdu, French, Dari