Moosa, Mohamed

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Master's student at Université de Montréal, specializing in Deep Learning and Data Science, with over 2 years of professional experience in deploying ML models and a robust background in Artificial Intelligence.

EDUCATION

Université de Montréal - Montréal, QC 2023 – Present

Master in Science, Computer Science

- GPA 4.3/4.3
- Teaching Assistant for STT1903 - Statistics under Prof. Dhaker Kroumi (Ph.D. Université de Montréal).
- **Research Assistant @ GRANIT Montréal** – Studying Transformers and Deep Convolutional Networks for mitigating floods from Rivière des Mille Îles under Prof. Azzeddine Soulaimani (Full Prof, ETS).

Indian Institute of Information Technology - AP, India 2017 – 2021

Bachelor of Technology, Computer Science and Engineering

- GPA 8.65/10
- 1 of 5 students to complete a Specialization in AI and Machine Learning.
- **Teaching Assistant**
  - Computer Programming under Prof. Rajendra Prasad (Ph.D. IIT Kharagpur).
  - Advanced Software Engineering under Prof. Subu Kandaswamy (Ph.D. Northwestern University).

EXPERIENCE

Swiggy

Bangalore, India

Data Scientist L2 *June 2021 – Jan 2023*

Swiggy, being the **"DoorDash of India"**, completes around 3 million deliveries daily. As part of the Market Fulfillment Platform team, I worked on the post-order experience and fulfillment of orders across all 3 verticals.

InstaMart - Quick Grocery:

- Built and deployed multiple real-time delivery prediction models for Swiggy Instamart throughout its journey, scaling it from **30,000 orders to 500,000+ orders** a day. These models are consumer-facing and power the assignment and logistics systems at the company.
- These big data models utilized machine learning techniques and neural nets to **analyse and transform millions of rows of data**. Enhancements made across releases captured tail events better, significantly reducing delayed orders from **5% to 2%** and reducing early deliveries from **40% to 17%** driving value and setting the right delivery expectations for customers.

Genie - PickUp and DropOff:

- I **mentored** a junior Data Scientist, helping her create the first consumer-facing model for Genie, our pickup-and-drop service at Swiggy. This model was Ensemble-based and included components predicting different stages of the journey. Doing so, we reduced delays from **18% to 6% as well as being more accurate (+3pp)** in the process.
- The model was designed to be built upon for use in other areas like assignment and logistics as well as providing the tracking and estimated time of arrival of delivery executives.

Food Delivery: Conducted key analyses on anecdotes raised across the org. These provided actionable insights on corrections and the path forward.

Achievements: For key contributions to the business, I was awarded the **Certificate of Excellence** in September 2022 during Instamart's 2nd anniversary event. I was **promoted to Data Scientist 2** in October of the same year.

Research Scientist Intern *Jan 2021 – June 2021*

- Designed and built a **BERT-based category classifier** from the free text description of items provided by customers. Classifying these customer transactions into multiple categories helped us understand the market needs of different customer segments.
- Published a study on Active Learning for multi-class text classification to understand its potential use throughout the organisation in **reducing annotation costs by 85%**.

Solar Options for Schools Bury St Edmunds, UK

BI Analyst Intern *June 2020 – Aug 2020*

- SFS provides services that enable schools to go Solar by not only providing a plant to them but also providing sustainable energy education to students.
- Gathered, organised, and structured core-generation and financial data of over **150 plants** around Europe and Asia
- Performed quantitative and qualitative business analysis to provide useful insights in the form of metrics, visuals, and reports.
- Also prepared a **"one-stop shop"** of information for remote management and maintenance of assets.

PUBLICATIONS

*S Prabhu *,* ***M Mohamed*,*** *et al.,* **Multi-class Text Classification using BERT-based Active Learning**, ***DaSH@KDD 2021***

- Explored cost-effective Active Learning strategies for Multi-Class Text Classification using BERT on diverse datasets, enhancing understanding of customer needs in the pickup and delivery services industry.

GRANTS & AWARDS

- Université de Montréal bourse d'exemption, 2e cycle (**10,169.68 CAD**) *Aug 2023 – Aug 2024*
- Le Ministère de l'Enseignement supérieur x DIRO (**3000 CAD**) *Dec 2023*
- 1 of 2 Data Scientists to receive the (Annual) Swiggy Certificate of Excellence *Sept 2022*
- Promotion to L2 Data Scientist at Swiggy *Oct 2022*

SKILLS

- **Natural Languages:** Native English, Basic French
- **Programming Languages:** C, C++, Python, MATLAB, JavaScript
- **Tools:** AWS (Sagemaker), Pandas, Databricks, Git, Docker, Flutter, scikit-learn, SQL

VOLUNTARY & EXTRA-CURRICULARS

- Took lectures for over 50 students on statistics, AI/ML, and Software development in partnership with TechiMax (India).
- Member of the Agent-Based Modeling research group at IIITS since 2019 led by Prof. Subu Kandaswamy.
- Sponsorship Team Lead for Abhisarga, IIITS' techno-cultural fest for the 2019 edition which brought over 1000 participants.
- Developed applications for green energy and solar education in partnership with Vigor Solar Energy (India)

Université de Montréal

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Relevé de notes non officiel

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Canada

Relevé des études de cycles supérieurs

Automne 2023

Programme d'études: 217510 - Informatique (Maîtrise)
Spécialisation: Intelligence artificielle (Spécialisation)

Cours	Description	Crédits:	Suivis	Obtenus	Note	Points	Moy.gr.
IFT 6135	Aprentissage de représent.		4.000	4.000	A+	17.200	
	2-175-1-0 72 Cours à option						
IFT 6269	Modèles graph. prob. et appr.		4.000	4.000	A+	17.200	
	2-175-1-0 72 Cours à option						

			Crédits:	Suivis	Obtenus	Moy.	Points
Moyenne générale trimestrielle	4.300	Total du trimestre	8.000	8.000	8.000	34.400	

Hiver 2024

Programme d'études: 217510 - Informatique (Maîtrise)
Spécialisation: Intelligence artificielle (Spécialisation)

Cours	Description	Crédits:	Suivis	Obtenus	Note	Points	Moy.gr.
IFT 6168	Infér. causale/apprenti. auto.						
	2-175-1-0 72 Cours à option						
IFT 6765	Liens entre visi.par ordi/lang						
	2-175-1-0 72 Cours à option						

Étapes obligatoires

Programme: Informatique 2e.
Rapport définitif
Statut: Non completé

Sommaire des moyennes et des crédits cumulés par programme d'études

	Trimestre	Moyenne cumulative	Crédits contributoires	Crédits cumulés
217510 - Informatique (Maîtrise)	Automne 2023	4.300	8.000	8.000

Fin du relevé des études de cycles supérieurs

Pour être officiel, le relevé de notes doit porter le sceau de l'Université et la signature du Registraire.