

Ahmed Dawod

Senior ML Engineer | 17+ years of SE experience including 12+ years of ML across NLP, BCI, CV, FinTech, BioTech, SEO | Expert in LLMs, Traditional ML, OpenBCI, and Agentic AI systems

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Montreal, Canada

OBJECTIVE

I have great passion towards Machine Learning and I want to use that to work on new challenges and solve life-changing problems. I have worked across different areas from fintech to NLP to Computer Vision and more recently Brain-Computer interface.

I have a passion for applying ML to impactful domains. From fintech, SEO, content writing and the biomedical domains, I enjoyed a nice adventure. I am willing and ready to explore other domains..

PROFESSIONAL EXPERIENCE

Senior Machine Learning Engineer

Shopify Montreal, Canada (Remote) July 2025-Present

- Owning and leading projects in the Recommendations team mainly for the Shop app
- Collaborating on different fronts and stakeholders to come up with ideas and solutions
- Mentor junior engineers and help them in their career track
- Build a plethora of AI-assisted tools: agents, MCPs, etc

Senior Machine Learning Engineer

BenchSci Montreal, Canada (Remote) October 2022-July 2025

- Doing R&D with ML models and LLMs in the pharmaceutical domain
- Owning, planning and managing projects and services
- Lead multi-disciplinary teams as the DRI of various projects
- One of the highest performers according to annual performance reviews
- Interacting with stakeholders to set expectations, do planning and present results

Machine Learning Research Engineer

MarketMuse Montreal, Canada (Remote) Jan 2019-October 2022

- Built one of the very first and efficient NLG content writers in the market
 1. created the dataset from the entire web
 2. built a custom transformers model
 3. created our own evaluation metrics
 4. created the deployment and the UI
- Built a search user intent classifier with the data labeling platform
- Built information extraction and question answering tools to build knowledge banks from the web
- Built and maintained backend services to deliver the ML products
- Owning, leading, planning and managing projects and services

Data Science Consultant

AOA Dx Montreal, Canada (Remote) August 2021-September 2022

- Assisting with data science and modelling work on ovarian cancer diagnosis
- <https://www.frontiersin.org/journals/oncology/articles/10.3389/fonc.2023.1134763/full>

Data Scientist

PayMob Solutions Cairo, Egypt (Remote) August 2017-April 2019

- Built an alternative scoring system for non-banked population using a mix of phone data and social media and network transaction history
- Analyzing millions of daily financial data points
- Building different models on the data to make business decisions
- Predicting death events (service canceling) for customers and designing offers and solutions to keep them

Teaching Assistant

Mansoura University – CS Department Mansoura, Egypt 2012-2017

- Programming labs
- Drove Machine learning research groups to generate revenue to the school
- Mentored out-of-the-box students grad projects to win competitions

Freelancer Developer

Freelancer.com Online 2009-2017

- Freelancer developer for various project types
- Have a 4.9/5 reputation
- Have 100% “On Time” rating

Project Samples

AI Assistant for Drug Discovery

- An ML/LLM-assisted AI for drug discovery scientists to speed up drug discovery in Pharma companies

MM NLG Suite:

- Building an NLG model to write high quality article drafts.
- One of the very first and efficient NLG content writers in the market
 - created the dataset from the entire web
 - built a custom transformers model
 - created our own evaluation metrics
 - created the deployment and the UI

User Intent Classifier:

- Build a model to classify user intent of urls and Google search queries.

Automatic inventory system using Computer Vision

- Built a system that uses CV to create and manage inventories from supermarket shelves

Identifying online debate posts stance with reasons (Research Project):

- Building a zero shot model that can classify sentences in a post with a stance and a reason why the user has that stance.

Credit Scoring for the unbanked:

- Building a model to calculate a score equivalent for the i-score for the unbanked population based on social media features.

Customized promos engine:

- Building a model to generate customized promos for each client based on their history and clustering.

Twasol:

- A project to allow quadriplegic patients to have full control their computers, homes and make and receive calls through just simple head movements and voice commands.
- It won first place in the local finals of the Microsoft Imagine Cup 2012 in Egypt and was one of the best 20 projects in the worldwide finals.

Work Logger:

- Work tasks logger and monitor for a programming company

IT Remote Support:

- Software to allow a computer company to remotely support, fix and log their clients machines.

POS software:

- Many POS projects for different clients to manage all kinds of businesses from all sizes.

MedicalLab Plus:

- A medical lab management software that interacts with medical analysis devices like blood analyzers and draws charts for the results. Managing data for all patients with some automated medical deductions.

Skills

- **Machine Learning:** LLMs, VLMs, OpenAI, Gemini, Llama, ..., Agentic AI, TRL, LoRA/QLoRA, Axolotl, Unsloth, CV, NLP, NLG, Signal Processing, Tensorflow, PyTorch, Scikit-Learn, OpenBCI, Statistical Analysis, Robotics, networkx
- **Programming:** Python, Golang, C++, C#, VB.NET, VB6, Java, Matlab,, JavaScript, PHP, R, React
- **Cloud infrastructure:** AWS, GCP
- **DevOps & MLOps:** Terraform, MLFlow, VertexAI Experiments, Env0, Bazel
- **Database Systems:** BigQuery, AlloyDB, Pinecone, Postgresql, SQL Server, MS Access, Oracle, SQLite, MySQL
- **Frameworks:** OpenBCI, Hadoop, Spark, Theano, TensorFlow, OpenCV, CUDA, Django, ROS robotics programming, Unity
- **Project Domains:** Machine Learning, Data Science, Windows Phone, Android, Web Apps, Desktop Software, Web Services
- Passionate about Scientific Research

SPEAKING ENGAGEMENTS

[xTelliGent Two: AI in GxP 2025 Summit \(May 28, 2025\)](#)

Navigating complex data challenges with AI where LLMs fail

This session delves into the real-world limitations of large language models (LLMs) within specialized and complex data environments, particularly in fields such as biomedical research. While LLMs have demonstrated their capabilities in summarization, question-and-answer tasks, and document retrieval, they frequently encounter challenges when dealing with messy, jargon-laden, or confidential data.

[The Tesseract Academy Conference \(Mar 2, 2022\)](#)

Big Data in NLG domain

Handling big data in NLG applications especially with the rise of LLMs.

EDUCATION

[Computer Science Masters \(Machine Learning Focus\)](#)

Purdue University, Computer Science IN, USA 2016
GPA: 3.04

[Computer Science Pre-Masters](#)

Mansoura University, Computer Science school Mansoura, Egypt 2013

[Computer Science Bachelors](#)

Mansoura University, Computer Science school Mansoura, Egypt 2012

Volunteering

[Boiler Out:](#)

A member of the Boiler Out volunteering group at Purdue for 4 semesters. Did 40+ hours of volunteering work.

AWARDS

- **2015 Fulbright Foreign Student Program**
- Microsoft Imagine Cup Egypt Locals Winner 2012
- Top of my undergraduate class

Articles & Papers

- [Skypekit.NET - CodeProject](#)
- [\(PDF\) Active Learning Survey](#)
- [GD2 and GD3 gangliosides as diagnostic biomarkers for all stages and subtypes of epithelial ovarian cancer](#)