

Deepratna Awale

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SUMMARY

Generative AI and Machine Learning Engineer with 3 years of industry experience who is an AWS certified Machine Learning Associate. Strong track record of deploying full-stack AI applications, and engineering pipelines for large scale structured and unstructured data.

Key Skills: Generative AI, Machine Learning, Data Science, Python, TensorFlow, PyTorch, AWS, ETL, Full Stack.

WORK EXPERIENCE

Generative AI Associate, Innodata Inc., Toronto, Ontario, CA Aug 2025 – Current

- Evaluated and rated AI model outputs for quality, relevance, and accuracy to ensure alignment for Meta.
- Contributed to internal tools for testing toxicity, and other metrics on various benchmarks.
- Supported dataset development through data collection and augmentation, reducing model overfitting.

AI Trainer: Coding Expert, T3 Outlier [Remote, Freelance] Dec 2024 – July 2025

- Correct and improve LLM Code generation output by giving a better optimized solution, simpler, and elegant.
- Awarded best performer for identifying and correcting Merge Sort space complexity.
- Supported code improvement for Python, JavaScript, Java.

Generative AI Engineer, Tapestry Video AI, Mountain View, CA, USA Oct 2024 – Dec 2024

- Created, maintained and optimized ComfyUI AI workflows by 40% for inpainting on TikTok style videos.
- Trained and finetuned custom opensource diffusion models on UGC dataset to produce TikTok style content.
- Built LLM agents using LangChain for analyzing Shopify product pages, and relevant TikTok tags.

Machine Learning Engineer, Axiom Softech Pvt. Ltd., Nagur, MH, India Oct 2021 – Sep 2022

- Optimized Data Pipelines, reducing ETL time by 35% using PySpark handling data over 4M+ records.
- Architected PyTorch and TensorFlow NN models, improving customer engagement by 20%.
- Deployed end to end AI solutions on AWS using EMR, Kinesis Data Streams, Lamda, S3, and Sagemaker, achieving 99.0% uptime and cutting costs by 25%.

Team Lead, IIT Bombay, Mumbai, MH, India Aug 2021 – Sep 2021

- Spearheaded feature to reduce manual corrections by up to 30% across all transliteration files.
- Led 5 C++ developers and 5 Python developers, delivering features in record times.
- Developed Udaan, a C++ application with QT Framework, to aid OCR output correction for Indian scripts.

Junior Data Analyst, Axiom Softech Pvt. Ltd., Nagur, MH, India Jan 2021 – Jul 2021

- Employed Python to create data pipelines, eliminate manual cleanup, achieving 98% data accuracy.
- Engineered forecast models for augmenting financial decisions with data (Scikit-learn, Statsmodels).
- Presented interactive dashboards to stakeholders for decision making, powered by Tableau and PowerBI.

SKILLS

- Programming Languages:** Python, Java, C++, JavaScript, SQL.
- Domains:** Generative AI (LLMs & Diffusion), Machine Learning, Data Science.
- Frameworks:** TensorFlow, PyTorch, Keras, QT Framework, Flask, Django, FastAPI, PySpark, NextJS, AuthJS.
- Libraries:** Pandas, NumPy, Matplotlib, LangChain, Sci-kit Learn, OpenCV, Pillow, Selenium, Beautiful Soup, Gradio.
- Platforms:** Linux, Windows, MacOS, AWS.
- Tools:** Tableau, Power BI, Docker, Jenkins, Git, Jira, Stable Diffusion.

EDUCATION

MASc, Computer Engineering, Memorial University of Newfoundland, Canada

2024

BEng, Information Technology, RGCER, India

2021

PROJECTS

Auto Express [Gen AI, Active Users, Live Site]



Jan 2024 - May 2024

- Launched an **open-source application** that **renders 28 facial expressions** on any face using **Stable Diffusion**.
- Created **inpainting workflows** to perform **localized feature changes** guided by **finetuned YOLOv8**.
- Result is a **one-click solution** for **chatbot emotion display**, optimizing the process by **91.67%**.

SD-Parsers [Gen AI, NPM Package, Live Site]



Jan 2024 - May 2024

- Launched an **open-source Typescript node package** to extract **AI generation metadata** from images.
- Deployed a live site for seeing the package and api in action using **express**.
- The parser is now **available online as api, and as a package**, and supports **multiple generation source**.

3T Chat [Gen AI, Live Site]



Jul 2025 - Jul 2025

- Launched a serverless **LLM chat service** using **NextJS** with **my personality** in under **2 hours** on **Vercel**!
- Implemented **file upload functionality** using blob storage, **managed PostgreSQL** instance for user Auth.
- Built an **agent** to get data from **GitHub repo api** and **pdf parsing** Resume parsing.

Fraud Detection [ML]



May 2025 - June 2025

- Built a **PySpark ETL pipeline** to process a **6M+** transactions dataset, **cleaned**, and **feature engineered** new fields.
- Designed and **deployed** a **Neo4j graph schema** to enable **multi-hop transaction analysis**, and **classification**.
- Developed and evaluated **fraud classifiers** using **scikit-learn** on **combined tabular and graph features**, reaching **89% precision** and **84% recall** on synthetic data.

Ocean Wave Height Estimation [Deep Learning, Neural Networks, CV]



Jan 2024 - April 2024

- Developed a custom **parser** for **Polar files** from the **Wamos II radar system** using **NumPy**, and **matplotlib**.
- Enhanced **accessibility** by **encoding data** into **PNG** format and **embedding radar data** using **Pillow**.
- Designed a **Hybrid Neural Network** consisting of **CNN** and **MLP** in **sci-kit learn** to estimate wave height.

3D Surface Reconstruction [CV]



Jan 2023 - April 2023

- Employed **COLMAP's Multi-View Stereo and Multi-View Fusion pipelines** for **3D reconstruction** from images.
- Developed **Python** scripts using **OpenCV, NumPy, and SciPy** to preprocess the Brutus rig's data.
- Performed frame extraction, **distortion removal**, **camera intrinsic information extraction** and **embedding to DB**.

Theoretical Answer Evaluation System [NLP]



Dec 2020 - May 2021

- TAES is an **NLP** system that evaluates textual answers using **tokenization, DAN, Rake NLTK, and TensorFlow**.
- Implemented features for **plagiarism detection, grammar-based penalties**, and **automated score allocation**.
- Achieved alignment with human-given scores 8/10 times, scoring **78%** on the semantic similarity **STS Benchmark**.

CERTIFICATIONS

AWS Machine Learning Associate

2025

IBM Data Science Professional Specialization

2019

IIT Madras Programming, DSA Using Python

2019