SRIJEET CHATTERJEE

Senior Machine Learning Engineer | London, UK

+44-7767978269 | champ.srijeet@gmail.com | LinkedIn | Medium | Github | Leetcode

SUMMARY

Experienced Data Science Professional with a track record of delivering innovative Al-powered solutions. Expertise in leading cross-functional teams, developing advanced ML models, and implementing state-of-the-art algorithms. Experience with full ML lifecycle, starting from data collection, curation, model selection, model training, validation, deployment and monitoring.

EDUCATION

Indian Institute of Technology (IIT-D)

Delhi, India

Master of Technology in Computer Science Technology

Aug 2017 - June 2019

Techno India College of Technology (TICT)

Kolkata, India

Bachelor of Technology in Electronics & Communications Engineering

Aug 2008 - July 2012

SKILLS

Languages: Python, Keras, PyTorch, C, C++, Java, SQL, MATLAB.

ML/Generative AI Frameworks: LangChain, LangGraph, CrewAI, Agentic AI, Langchain, MCP, Numpy, Azure, OpenAI, Pandas, Scikit-learn, PyTorch, Keras, OpenCV.

DevOps/MLOps Tools: Jupyter Notebook, Docker, Kubernetes, Jenkins, MLFlow, Databricks, Azure Cognitive Services, DVC, Flask, Git, FastAPI, Streamlit.

DBs/Vector DBs: Quadrant, Chroma, FAISS, Cloudant, Oracle.

ML CourseWork: Machine Learning, Deep Learning, Computer Vision, Natural Language Processing(NLP), Reinforcement Learning, Information Retrieval, Text mining.

Leadership: Leading 5 member team. Scoping complex tasks, acting as a data advocate across multiple teams.

EXPERIENCE

Meta (WhatsApp Integrity) Senior Software Engineer, Machine Learning

London, UK

April 2025 - Present

ML classifier to enforce bad actors(SCAM) on the platform

- Designed and implemented the first NN based classifier to enforce on bad actors on the platform, reducing scammer engaged conversations by 18%.
- Supervised Finetuned Llama 7B Model vs 70B model using Low-Rank Adaptation (LoRA) to utilise in appeal process evaluations.

UBS Investment Bank
Generative AI engineer, Director

London, UK Dec 2022 - Mar 2025 Working on advanced Al Agent systems leveraging Large Language Models (LLMs) and multimodal inputs. Focused on applied research and ML system design.

Al Generated Hooks for Research Reports

- Designed and implemented the **first** generative AI based use-case approved for production usage within the IB(Investment Banking) group, it is a real-time hook generation solution for the equity research reports which is used by multiple financial research analysts at Evidence Lab(IB) for an average of **55k** reports every year.
- · Conducted A/B tests highlighting emails displaying hooks have **60% more client readership**(Business KPI), which directly supports the Evidence Lab revenues.
- · Solution has accelerated generative AI adoption, enhanced client experience and helped push the efficiency of the research analysts while **saving 500 Man-Hours(avg)**.

Japanese-English Neural Machine Translation(NMT)

- · Led the data preparation for the JP-EN custom model with the bilingual sentence mapping algorithms & API development to interact with the Azure Offerings for custom translation model creation, training and deployment. Evaluated comparative performances of custom model, Generalised Azure Translator and Sentience Translation Model (3rd party).
- · Achieved **blue score(average) of 0.54**, 46% improvement over the Sentience(3rd party) NMT Model.

Deloitte London, UK

Senior Machine Learning Engineer

June 2022 - Dec 2022

Talk-2-Tables & Talk-2-Docs

- Developed the LLM based solutions to interact with the domain specific private documents and sql databases. Used RAG(Retrieval Augmented Generated) paradigm with Chroma vector DB.
- · Worked on the evaluation criteria for the LLM based solutions and security/explainability aspects as well.

IBM India Pvt Limited

Bangalore, India

Data Scientist III, Band 7A

July 2021 - March 2022

Cognitive Metrics Tools Development for AT&T

• Developed web API for the Defect Removal Efficiency (SLA) metric using flask in DevOps environment.

Data Scientist-II, Band 6B (skipped level 6A)

July 2020 - June 2021

Acharya/AI-SME for AT&T (Seg-2-Seg Problem Modelling)

- Developed automated problem-solution extractor and multi-level ranking algorithm using POS tagging, SVD based QoS score, domain specific patterns and keywords.
- Designed deep learning based encoder-decoder architecture for the solution generator with ReLU boosted LSTM as building blocks, trained on historical tickets and deployed as a web API using Flask.

Data Scientist-II (Trainee), Band 6G

July 2019 - June 2020

Al Virtual Analyst for Wells Fargo

• Designed a multi-document text analyser using the Watson Knowledge Services (WKS) API and deployed as an instance of Watson Discovery Services.

Tata Consultancy Services Ltd

Kolkata, India

Data Scientist, Advanced Analytics

March 2013 - July 2017

- Worked as an SME for the eCRM(eclipse Customer Relationship Management) and COPs(Centralized Offer Palette System) modules .
- Developed "offer conversion" prediction model for the Cognitive Metrics Tool Development project with an accuracy score of 74.68.

SCHOLASTIC ACHIEVEMENT

- Received First Patent File Reward on December 02, 2021
- IBM Extra Mile Award for conducting 3 weeks long Deep Learning session (more than 200 participants), 2020
- AIR 344 in GATE in CSE amongst approx 130000 candidates, 2017
- Best Team Award for outstanding contribution to the organization, TCS, 2016
- KUDOS for Best performer in the Initial Learning Program (ILP), TCS, 2013

RESEARCH EXPERIENCE(Thesis/Publication/Patent)

<u>Patent:</u> Business language processing using Latent Space oriented Quality of Solution (LoQoS) Score & ReLU boosted LSTM (rb-LSTM), IBM Bangalore, 28th November 2021

• Filed the <u>patent</u> with the U.S. Patent & Trademark Office for the work done on business language process to generate answers based on historical data and business specific rules using encoder decoder based sequence to sequence deep learning model.

<u>Major Thesis:</u> Grading of Brain Tumor based on Texture Features using Machine Learning Algorithms, IIT-D, January 2019 - June 2019

Supervisor: Dr. Anup Singh & Dr. Sumeet Agarwal

- The project aims at classifying the brain tumor grades based on their texture features. We looked into a set of first and second order texture features here and then selected the most prominent features from the classifications' point of view.
- Developed automated second order texture feature extractor module using matlab for MRI (Flair,TIGD, T2W) images.
- Compared performance of Decision Tree, Support Vector Machine, Logistic Regression, and K-Nearest Neighbours algorithm along with the hyper-parameter tuning to conclude:
- "Cluster Prominence" is the most powerful feature and the Two class classification problem has better accuracy than the three class classification.
- The best accuracy for the classification of grade 2 vs. grade 3 vs. grade 4, is limited to 64.63 percent, which considering the clinical importance, is not satisfactory.
- Including quantitative features is a very good option, which alone is capable of giving more than 80 percent accuracy.

<u>Publication:</u> Recommendation System for IBM Watson Services Platform, IBM GTS Labs, May 2018- July 2018

• Published technical disclosure paper titled "<u>Services Recommendation Engine using Client's Demographics</u>' explaining the end to end process of service recommendation engine development that offers consumable services to the existing client base.

<u>Minor Thesis:</u> Image Super Resolution using Generative Adversarial Network, IIT-D, Jan'18- Apr'2018

Supervisor: Dr. Sumantra Dutta Roy

- The project aims at implementing the SRGAN model in Tensorflow (for static Image Super Resolution) to match the state-of-the-art PSNR value and further improve the perceptual quality of the super-resolved image.
- Improved the MOS (Mean Opinion Score), 3.2 percent to 3.54 from 3.43 by improvising the error function to improve the perceptual accuracy.

Positions of Responsibility

iCrowdIt AT&T Hackathon Team Member, IBM India, (July - June 2020)

• Responsible for practice use-case creations and designing evaluation criteria with fairness & transparency for prized use-cases.

Org Wide Deep Learning Session Core Instructor (June - July 2020)

• Successfully conducted a 3-week training on Introduction to Deep Learning in IBM for AT&T account with more than 200 active participants.

<u>Teaching Assistant (TA), IIT Delhi, July 2017 - Dec 2018</u>

- Computer Architecture (July 2017 Dec 2017)
- Machine Intelligence and Learning, (July 2018 Dec 2018),

Assisted in conducting tutorial sessions on multiple topics such as Paging, Cache Memory Management, SVMs, CNNs and GANs

Placement Coordinator, IIT-Delhi, 2017 – 2019

• Nucleus Team Member in Training and Placement Team in IIT-Delhi for M.tech in Computer Technology batch of 2019.