Sajal Sharma

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PROFESSIONAL SUMMARY

Seasoned Machine Learning Engineer with 7+ years of experience in NLP and Deep Learning. Having led major AI projects throughout Asia, my expertise lies in integrating cutting-edge technologies such as large language models (LLMs) and Generative AI into strategic business initiatives, consistently staying ahead in the realm of AI innovation.

EXPERIENCE

Lead AI Engineer   Aug 2023 – Present
OneByZero (contracted via Unscrambl)   *Singapore*

- Leading the AI engineering team, pioneering solutions with proprietary and open-source LLMs, RAG, vector databases, and techniques such as prompt engineering, chaining, function calling, and agent-based systems.
- Enhanced deal acquisition and client engagement through technical presentations and Generative AI workshops at client sites, contributing to the company's recognition as an AI industry leader.
- Developed an LLM-powered chatbot POC for a major Philippine bank, showcased at the Singapore Fintech Festival. Utilized AWS infrastructure, including Bedrock, Sagemaker, and Opensearch.
- Transformed a major appliance retailer's data extraction process by implementing LLMs for automation, reducing product data entry time from 2 hours to 15 minutes, greatly enhancing e-commerce efficiency and accuracy.

Senior AI Engineer   Jan 2023 – Aug 2023
Splore, a Temasek backed AI startup (contracted via Unscrambl)   *Singapore*

- Spearheaded enhancements in user search experience, reducing incorrect query responses by 50% and boosting user engagement, while collaborating with cross-functional teams to align AI development with business goals.
- Developed a question-answering system for queries about current affairs using Langchain, GPT model and Bing Search, which tripled user engagement and number of daily queries.
- Enhanced Vespa search engine performance, improving the Mean Average Precision (MAP) metric from 0.3 to 0.8 by refining ranking algorithms and integrating keyword with semantic search using vector embeddings.

Senior Machine Learning Engineer   Apr 2020 – Dec 2022
Unscrambl   *India*

- Key member of Unscrambl's NLP Engineering team, helping enhance the natural language understanding of their business analytics platform. Focused on advancing NER, intent recognition, and ANNOY model functionalities.
- Developed the NL to SQL system data preparation pipeline using NLTK and spaCy, cutting over 5 hours of manual effort daily and boosting system efficiency.

Machine Learning Engineer   Aug 2017 – Apr 2020
Unscrambl   *India*

- Led the design & deployment of chatbot solutions for clients across Asia, significantly impacting over 100,000 monthly users. Utilized Microsoft Bot Framework and Azure AI Services for NLU and dialog management.

EDUCATION

The University of Melbourne   Melbourne, Australia
Master of Information Technology, Major in Computing   *Aug 2014 – Aug 2016*

Bharatiya Vidyapeeth University   New Delhi, India
Bacher of Computer Applications   *Jul 2010 – Jul 2013*

TECHNICAL SKILLS

Languages: Python (Fluent), SQL (Proficient), Javascript (Proficient), Ruby (Familiar)
AI & ML Technologies: Huggingface, Sentence Transformers, Pytorch, GPT, Claude, llama, Langchain, BERT, SpaCy, NLTK
Tools & Frameworks: Git, Docker, AWS, Google Cloud Platform, Opensearch, Vespa, Pinecone, VsCode, Unix

ACTIVITIES

- **Mentor & Project Reviewer, Udacity**: Coached 100+ international students enrolled in Data Science courses. Recognised as an elite mentor in 2021 with A+ mentor performance grade based on student feedback scores.
- **Mentor, STEM Industry Mentoring Programme, The University of Melbourne**: Jul 2020 - Present
- **Creator, Data Science Portfolio**: Github repo with 900+ stars showcasing various classical Data Science projects.