

Samkit Shah

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Github | Blog | LinkedIn | Codeforces

EDUCATION

Degree	Institute/Board	Year
Bachelors	Indian Institute of Technology, Jodhpur - Computer Science and Engineering	2020-2024
Senior Secondary	CBSE Board	2020
Secondary	CBSE Board	2018

EXPERIENCE

- **Warner Bros. Discovery** July 2024 - Present
Software/Machine Learning Engineer I Bangalore, India
 - Project co-lead for machine learning service. Projects include Work order ETC, Vendor recommendation
 - End-to-end development lifecycle execution, from ADD approval to production deployment and maintainence
 - Integrated Transcript and Caption AI which reduced overall cost by 50% and file creation time by 80%
 - Performed PoC for Cadence to Temporal migration for orchestration engine optmization and support
 - Tech: Java, Spring boot, Hibernate JPA, PostgreSQL, Cadence, RabbitMQ, Kafka, SNS/SQS
- **Latentforce AI** June 2024 - August 2024
Artificial Intelligence Engineer Remote
 - Leveraged open source VLMs such as CogVLM, Phi3, Gemma to perform key-information extraction from Personal identity documents
 - Used OpenAI models to generate knowledge graphs from financial documents pdfs and perform GPT guided contextual chunking for RAG application.
 - Benchmarking latest models on the fly to generate business value by choosing the most suitable product for the clients
 - Achieved remarkable accuracy of 95.6% and F1 score of 0.83

OPEN SOURCE

- **Uber - Cadence** Sept 2024 - Present
Individual Contributor Remote
 - Actively contributing to workflow orchestration OSS - Cadence by Uber
 - Worked on multiple feature requests, coverage improvement and error handling
- **PyNeuroML** Jan 2025 - Present
Individual Contributor Remote
 - Added utility functions for Component type list params
- **The Virtual Brain** Jan 2025 - Present
Individual Contributor Remote
 - Increased efficiency of Reduced set models through Numba replacement

RESEARCH

- **VL2G - Vision Language and Learning Group** Jan 2024 - May 2024
Undergraduate Student Researcher IIT Jodhpur
 - Worked closely under guidance of Dr. Anand Mishra, Dept. of Computer Science on DocumentAI projects.
 - Finetuned SOTA object detection algorithms such as YOLO and DeTR to detect Checkboxes and header-footer detection
 - Generated synthetic forms dataset consisting of 1000+ images , aggregated data from multiple dataset sources, programmed algorithms for data augmentation
- **Bachelor Thesis Project** Sept 2023 - Dec 2023
Dr. Saptarshi Payne, Dept of CSE IIT Jodhpur
 - Extensive literature review of Dr. Marco Scutari's work in order to synthesise new scoring methods.
 - Showed the presence of markov equivalent structures for graph generation methods in widely used public librarires such as bnlearn (python)
 - Implemented tie-breaking strategy for exhaustive search produced candidate graphs

INTERNSHIPS

- **Warner Bros. Discovery** May 2023 - July 2023
Software Engineer Intern Bangalore, India
 - Developed a PoC for comparison between AWS - SNS, SQS and Kafka topics
 - Achieved a remarkable 36% reduction in event latency and successfully handled a 52% increase in the incoming event load
 - Received pre-placement offer reflecting the outstanding performance
- **WorldQuant** Sept. 2023 - Dec 2023
Consultant Remote
 - Developed and implemented statistical models and strategies to optimize trading and investment decisions.
 - Created 30+ alphas with Average Sharpe of 2.1 , average returns of 11.3% , Turnover of 14.3%
- **Arihant.ai** July 2021 - Sept 2021
AI Intern Ahmedabad, India
 - Studied Reinforcement Learning algorithms and Times series forecasting algorithms
 - Q-learning, VAR, MDP, SARSA and ARIMA

PROJECTS

- **fMRI Reconstruction** Feb. 2024
Paper Implementation Github
 - Implementation of alpha-GAN for generating images to be used in EEG and fMRI deep image reconstruction.
- **E2E-SFCG** Feb. 2024
OSS Github
 - Multiple agent solution for diverse short form content generation - Blogs, Vlogs. More features coming out soon
- **Molecular Property Prediction using Deep Learning** Feb. 2023 - March 2023
Dr. Mayank Vatsa, Deep Learning Github
 - Benchmarking of RNN, LSTM, GRU and Transformer(ChemBERTA), GCNN models on sequence based molecular fingerprints graphical representation of molecules
- **Prometeo** Oct. 2022 - Jan. 2023
Head of Web Development Github
 - Lead a team of 7 for Website Development for Technical and Entrepreneurial Fest of IIT Jodhpur - Prometeo '23

Please visit blog for more projects and technical blogs.

EXTRA-CURRICULARS AND LEADERSHIP

- **Core Member**, Programming Club, IIT Jodhpur 2022 - 2024
- **Team Lead**, Inter IIT Tech Meet 11.0 (Quant), IIT Madras - Rank 8 Dec 2023
- **Team Lead**, Inter IIT Sports Meet (Chess), IIT Delhi - Rank 7 Dec 2022
- **President**, Chess Club, IIT Jodhpur 2022 - 2023

TECHNICAL SKILLS

- **Programming:** C/C++, Python, Java, JavaScript, SQL
- **Machine Learning:** Pytorch, TensorFlow, Document Intelligence, Langchain, CrewAI, Transformers
- **Tools and Technologies:** Git, Docker, Postman , Unity , Flutter , Jenkins , Confluent, AWS , Splunk, DataDog, Openstack, JUnit, Mockito, Gnache
- **Frameworks:** Django, Springboot, Express

KEY COURSES TAKEN

Data Structure and Algorithms, Deep Learning, Linear Algebra , Probability and Statistics, Software Engineering, Distributed Databases, Distributed Algorithms, Big Data and Cloud Computing, Databases, Machine Learning, Operating Systems, Computer Architecture, Networking, Computer Vision

ACHIEVEMENTS

- **AIR 2005 JEE Advanced**, 4th in IIT Jodhpur 2020
 - **AIR 1809 JEE Mains**, Top 0.16% of 1.3 Million candidates 2020
 - **2nd Place in IIT J** , AIR 223 in ICPC'23 Prelims 2022
 - **1st Place Debate**, Inter hostel cultural Championship 2022
 - **National Level Chess Player**, U-7 and U-13, Internationally Rated Player 2014
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