Samkit Shah

Roll No.:B20CS059 (Batch of 2024)
Computer Science and Engineering
Indian Institute Of Technology, Jodhpur

+91-7600449918
samkitshah1262@gmail.com
shah.11@iitj.ac.in
linkedin.com/in/samkit-shah-432147209/

Education

Degree/Certificate	Institute/Board	GPA/Percentage	Year
B.Tech. (CSE)	Indian Institute of Technology, Jodhpur	7/10	2024
Senior Secondary	CBSE Board	91%	2020
Secondary	CBSE Board	94%	2018

Experience

- **LatentForce.ai** *June. 2024 -*
  AI Engineer Remote
  – Leveraged opensourced VLMs such as CogVLM, Phi 3, 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.

- **Undergraduate Student Researcher** *Jan. 2024 - May 2024*
  Dr. Anand Mishra, Dept. of CSE IIT Jodhpur
  – Working closely under guidance of Dr. Anand Mishra as a part of VL2G (Visual and Language Learning group) lab 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 codes to take sections and applied data augmentation

- **WorldQuant** *Sept. 2023 -*
  Quantitative Research Consultant Remote
  – Analyzed large datasets (US100 , US500) using advanced statistical techniques and programming languages such as Python Fast expression
  – 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%

- **Undergraduate Student Researcher** *Sept. 2023 - Dec. 2023*
  Dr. Saptarshi Pyne, 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.

- **Warner Bros. Discovery** *May 2023 - Jul. 2023*
  Software Development Intern Bangalore, India
  – Developed a PoC to enhance the event-driven architecture of Duplo(Work order Management system) by replacing the existing AWS SNS, SQS with Kafka topics
  – Achieved a remarkable 36% reduction in event latency and successfully handled a 52% increase in the incoming event load without any significant performance degradation
  – Proposed a streaming application design for events processing component of Duplo
  – Contributed to regular sprint issues subsequent to the early and successful completion of the project.
  – Received pre-placement offer reflecting the outstanding performance.

- **ArihantAI** *Jul. 2021 - Sep. 2021*
  Machine Learning Intern Ahmedabad, India
  – Contributed in the development of a Ad Recommendation system that leveraged highly intricate reinforcement learning algorithms and advanced time-series forecasting techniques.
  – Implemented Q-learning and VAR, Learned MDP, SARSA as well ARIMA

Other Experience

- **BPK Tech** *March 2024 - May 2024*
  Web Scraping SWE Remote
- **Getout Travel** *Oct. 2022 - Dec. 2022*
  Backend Intern Remote

Projects

- **Prometeo** *Oct. 2022 - Jan. 2023*
  Head of Web Development Jodhpur, India
  – Lead a team of 7 for Website Development for Technical and Entrepreneurial Fest of IIT Jodhpur - Prometeo '23

- **Varchas** *Sep. 2022 - Nov. 2022*
  Assistant Head of Application Development Jodhpur, India
  – Co-lead a team of 6 for Application Development for Sports Fest of IIT Jodhpur - Varchas '22

- **Molecular Property Prediction using Deep Learning** *Feb. 2023 - Mar. 2023*
  Dr. Mayank Vatsa, Dean R&D
  – Benchmarking of PyTorch implementations of RNN, LSTM, GRU and Transformer (ChemBERTA) models on sequence based molecular fingerprints and Graphical Convolutional Neural Network GCNN using graphical representation of molecules
  – GCNN performed the best with an AUROC score 0.9
  – **Tools & technologies used**: Pytorch

- **Personality Predictor** *Feb. 2022 - Mar. 2022*
  Dr. Richa Singh, HOD CSE
  – Used BERT on the Myer-Briggs to classify twitter users into 16 personality types and achieve an accuracy of 68%.
  – **Tools & technologies used**: NLTK , Numpy , Pandas , Matplotlib , Tensorflow , Flask

- **IDMS** *Sept. 2022 - Dec. 2022*
  Dr. Satyajit Sahu, President BSS
  – Lead a team of 6 for the inventory and database management system for Board of Student Sports.
  – **Tools & technologies used**: Node.js , Flutter , Express.js , Firebase , MySQL

Extra-curriculars and Leadership

- **Core Member / Mentor,** Programming Club IITJ *2022 - Present*
- **Team Lead,** Inter IIT Tech Meet, IIT Madras, Rank 10 - WorldQuant *December 2023*
- **Team Lead,** Inter IIT Sports Meet, IIT Delhi, Rank 7-Chess *December 2022*
- **Secretary,** Chess Club *June. 2022–May. 2023*
- **Senior Executive,** E-Cell *June. 2022–May. 2023*

Achievements

- **JEE Advanced All India Rank 2005** - 4th in IIT Jodhpur *2020*
- **JEE Mains All Inida Rank 1809** - Top 0.16 % of 1.3 million candidates *2020*
- **ICPC Preliminary'23 Rank 223** - 2nd Place in IIT Jodhpur *2023*
- **Specialist on Codeforces** - 1473 (Peak) *2023*
- **National Chess Player** U-7 , U-13 , FIDE Rated Player *2011*

Technical Skills

–**Programming:** C/C++, Python, Java, JavaScript, SQL, Dart, Bash, Solidity
–**Tools:** Git, Docker, Postman , Unity , Flutter , Jenkins , Confluent, AWS , Splunk, DataDog, JIRA, Openstack, JUnit, Mockito, Gnache
–**Libraries/Frameworks:** Django, Springboot, Express, Kafka, Pytorch, Tensorflow, NLTK

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