BHUVAN SHAH

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EDUCATION

University of Southern California Los Angeles, California
Master's of Science in Computer Science May 2025

- *Coursework*: Analysis of Algorithms, Database Systems, Applied Natural Language Processing, Advanced Mobile Devices

Indus University Ahmedabad, India
Bachelor's of Computer Science and Engineering| CGPA 9.63/10 August 2019-May 2023

- *Coursework*: Data Science, Machine Learning, Differential Equation and Linear Algebra, Computer Systems Architecture, Operating Systems, Computer Network, Cloud Computing, Web Technology

TECHNICAL SKILLS

Languages: Python, SQL, Deep Learning, Machine Learning, HuggingFace, Transformers, LSTM, JavaScript, Java, C#, React, Node.js
Technology: Pytorch, SciKit, Git, Power BI, Tableau, TensorFlow, Hadoop, Spark, Flask, Django, GCP, AWS S3, NoSQL, MongoDB, Data Visualization, Statistical Learning, GCP

EXPERIENCE

University of Southern California Los Angeles, California
Graduate Teaching Assistant – Advanced Mobile Devices and Game Consoles May 2024 - Present

- Facilitated 180+ students through office hours, guiding on C#, Python, and R coding, and delivered key lectures on course concepts, graded assignments with detailed feedback, developed 6+ in-class coding activities, and supported the integration of analytics into games through Firebase and Unity Analytics

Prompt Softech Ahmedabad, Gujarat
Data Scientist Intern December 2022-May 2023

- Impacted 12 traders by achieving 93% accuracy with a custom LSTM neural network with bifurcated architecture using stock prices and Twitter sentiment polarity
- Reached 95% average accuracy by enhancing performance through building and fine-tuning technical indicators
- Generated over $1200 in trading profits by boosting accuracy to 95.6% through comprehensive backtesting and refining indicators with MQL4/MQL5

Tornado Computer Ahmedabad, Gujarat
Data Analyst Intern June 2021-July 2021

- Attained 92% accuracy in performance optimization by leveraging algorithms and IoT to optimize hardware performance and predict system failures
- Reduced downtime and repair costs by 87% through implementing a neural network for predictive maintenance using sensor data from hardware sensors and logs

Vueinternational Ahmedabad, India
Software Developer Intern June 2020-October 2020

- Delivered a 15% increase in user engagement by designing and implementing interactive components with React, Tailwind CSS, Node.js and Express.js with MongoDB to facilitate efficient data retrieval
- Enhanced transaction security by 20% through integrating secure credit card transactions with Stripe API

ACADEMIC PROJECTS

PII Detection and Masking| *PyTorch, DeBertaV3, Transformers, MongoDB, Natural Language Processing* USC, Los Angeles, CA
Team Leader January 2024-May 2024

- Led a team of 5 people and achieved a 99.56% F-Beta Score by developing a DeBERTaV3-based NER system with advanced architecture, integrating a dense layer and softmax activation for improved accuracy in PII detection
- Expanded detection capabilities from 10-15 to 94 PII tags, surpassing traditional rule-based systems by optimizing training with a dynamic learning rate schedule and advanced token-level prediction

Forecast Finesse: Analysing stock performance | *LSTM, BeautifulSoup, Streamlit, Tweepy* Ahmedabad, India
Personal Project December 2022-May 2023

- Performed sentiment analysis system on live Twitter feed and Google News using a customized NLTK combined with BeautifulSoup for webscraping resulting in 92% accuracy excluding nuances such as sarcasm
- Developed a dashboard with live streaming of data from Yahoo Finance, tweets and GoogleNews, polarity sentiment scores resulting in 24% increase in profitability of users

Analysing Student Marks | *Machine Learning, Google Colab* Ahmedabad, India
Team Leader November 2021-December 2021

- Engineered a robust analytical model with dimensionality reduction techniques to identify 10 key performance indicators; this targeted approach resulted in an 80% improvement in student academic performance across diverse learning environments