BHUVAN SHAH

bhuvansh@usc.edu| (213) 331-1360 | bhuvannnn.github.io/tech-portfolio/| linkedin.com/in/bhuvanshah/ |github.com/Bhuvannnn

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| GPA 4.0 — 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 — 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

PROJECTS

PII Detection and Masking| *PyTorch, DeBertaV3, Transformers, Natural Language Processing, LLM* — Los Angeles, CA
- 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 tailored learning rate schedule and advanced token-level prediction

Me, Myself and Time| *Unity, C#, Python, Tableau, Git, Data Analysis* — Los Angeles, CA
- Enhanced player experience by implementing a unique time-traveling mechanic, resulting in a 25% increase in engagement, as measured by player retention rates, with the game played nearly 10,000 times on the live build.
- Improved game analytics by integrating detailed heatmaps and stacked bar diagrams, achieving a 30% boost in level completion rates through data-driven design adjustments and reducing player restart rate by 20%

Forecast Finesse: Analysing stock performance | *LSTM, BeautifulSoup, Streamlit, Tweepy* — Ahmedabad, India
- 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
- 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