DEEP VIVEK SHETH

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EDUCATION

University of Southern California, Los Angeles, USA | ***Masters of Science Computer Science*** **Jan 2024-Dec 2025**

(GPA 3.5/4.0) | Introduction to Artificial Intelligence, Machine Learning, Analysis of Algorithms, Parallel Programming and Distributed Computation (Performance tuning of system chips)

Vishwakarma Institute of Information Technology, India | ***Bachelor of Technology Computer Engineering*** **Aug 2018-May 2022**

(GPA 9.26/10.0) | Algorithms, Database Management Systems, Operating System, Data Analytics, Computer Architecture

SKILLS

Languages: Python, C++, SQL, C, Scripting Languages

Data Science: Matplotlib, NumPy, Pandas, Deep Learning, TensorFlow, Keras, Pytorch, Scikit-Learn, Seaborn, Distributed Systems, Data Visualization

Database: mySQL, MongoDB, ElasticSearch, Neo4J

Software: AWS (S3, EC2, Lambda, SageMaker), GPU Acceleration, Power BI, Tableau, Git, Restful API, GenAI, LLM, OpenAI, Object-oriented Programming Language

INDUSTRY EXPERIENCE

Persistent Systems, India | Data Scientist **Jul 2022-Nov 2023**

- Conducted comprehensive data analysis on company products using predictive analytics for shipment date forecasting, delivering actionable insights to business stakeholders and driving growth and revenue strategies
- Led data cleaning and exploratory data analysis (EDA) initiatives, uncovering key trends and presenting data-driven recommendations to clients, which enhanced satisfaction and secured a high-profit project
- Developed machine learning models for classification and named entity recognition (NER) for a healthcare company, enabling doctors to navigate medical protocol and drug testing/trial documents 60% faster. Additionally, transformed a monolithic service into a microservices architecture
- Implemented Transformer models for natural language processing (NLP) to match movie synopsis across multiple languages, including Spanish and German, reducing manual labeling time by 80%

Persistent Systems, India | Machine Learning Intern **Feb 2022-Jul 2022**

- Led advanced research on Intrusion Detection Systems (IDS) and Phishing URL Detection, applying deep learning techniques such as stacked autoencoders, resulting in an 8% reduction in scam incidents
- Published a high-impact paper titled "Comparative Analysis of Machine Learning Algorithms for Intrusion Detection Systems," demonstrating expertise in model evaluation and contributing to cybersecurity advancements
- Designed and deployed anomaly detection models using OneClassSVM and stacked autoencoders, improving detection speed by 15% compared to human analysis and protecting critical digital assets from cyberattacks

C-DAC, India | Natural Language Processing Intern **Jun 2021-Jan 2022**

- Researched Hindi language generation using LSTM, leading to deeper insights into linguistic structures and improving the accuracy of generated content by 20%
- Enhanced the performance of BERT and LSTM models on Indian languages, addressing language-specific intricacies and achieving a 20% improvement in natural language understanding
- Developed a chatbot for three different Indic languages using a masked transformer, significantly increasing the accuracy and fluency of generated responses across multiple languages

PROJECTS

GenAI Hackathon | Azure OpenAI, Swagger API, Streamlit, Python, Prompt Engineering, VBA Script, Data Engineering

- Upgraded company's employee project allocation system, leveraging LLM to match resumes with future projects and generate VBA scripts for personalized PowerPoint presentations
- Accelerated employment allocation by 22%, optimizing project matching and enhancing operational efficiency
- Improved employee satisfaction and engagement through transparent project allocation explanations, fostering a collaborative work environment and achieving a 60% success rate in perfect matches

Stock Market Movement Prediction Using New Sentiments | Python, ML Algorithms, Web Scraper, Data Mining, Predictive Modeling

- Developed an ensemble approach using Natural Language Processing (NLP), supervised machine learning (ML), and neural networks to analyze web scraped news, enhancing trading strategy predictions for stock/index movements
- Integrated technical indicators with sentiment analysis models to improve predictive accuracy, forecasting market dynamics with about 24% precision
- Leveraged domain expertise in stock trading strategies (futures and options) and technical indicators for candle chart patterns, optimizing model performance and market prediction accuracy