

VIBHOR MECHU

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EDUCATION

New York University

Master of Science in Computer Science, GPA: 3.67/4.0

New York, USA

Expected May 2025

Relevant courses: Advanced Machine Learning, Deep Learning, Big Data, Artificial Intelligence, Analysis of Algorithms, Software Engineering

Manipal University Jaipur

Bachelor of Technology in Electronics and Communication Engineering, GPA: 3.84/4.0

Rajasthan, India

Jul 2018 – Jul 2022

TECHNICAL SKILLS

Programming Languages: Python, SQL, C/C++, JavaScript

Python Libraries: Sci-kit Learn, Pandas, NumPy, Matplotlib, PyTorch, TensorFlow, PySpark

Technologies: Spark, Kafka, Git, Django, BigQuery, React

AWS Services: EC2, S3, Lambda, Cognito, IAM, API Gateway, EKS, ECS, DynamoDB

PERSONAL PROJECTS

Multimodal System for News Summarization and Image Generation | *Stable Diffusion, RAG*

Mar 2024 - May 2024

- * Developed a multimodal AI system leveraging Stable Diffusion and Retrieval-Augmented Generation (RAG) for accurate news summarization and contextual image generation from diverse news sources.
- * Enhanced the system's performance and relevance by fine-tuning a large language model to ensure the textual summaries and generated images maintained neutrality and factual accuracy.
- * Implemented advanced techniques for bias removal and model fine-tuning, achieving a robust and ethically aligned multimodal news reporting tool.

Real-Time Forex Trading and Arbitrage Detection System | *Kafka, Spark, BigQuery*

Mar 2024 - May 2024

- * Developed a forex trading platform to detect arbitrage opportunities using Kafka for streaming and Spark for real-time processing.
- * Implemented predictive modeling with machine learning in Spark to forecast currency price movements.
- * Leveraged BigQuery for data storage and built a Looker Studio-based dashboard for interactive trading insights.

CineVerse | *Django, React*

Feb 2024 – Apr 2024

- * Developed CineVerse, a social media platform for movie enthusiasts, using React, Django to create a seamless user experience.
- * Engineered a dynamic interaction system, facilitating movies discussions and reviews, and integrated a movie database with access to over 10,000 titles.
- * Enabled direct messaging and group features, fostering community building and private conversations among users with similar interests.

Dining Concierge Chatbot | *Lambda, API Gateway, Lex, SQS, Elasticsearch, DynamoDB, CDK*

Jan 2024 – Feb 2024

- * Employed event-driven architecture to create a scalable and serverless dining concierge application offering intelligent user-specific recommendations
- * Leveraged the Cloud Development Kit (CDK) and Python to automate infrastructure provisioning
- * Integrated Amazon Lex for conversational capabilities, Elasticsearch for indexing restaurant data, and SES for real-time notification delivery to users

WORK EXPERIENCE

Ericsson

New Delhi, India

Software Developer Intern

Jan 2022 – Jul 2022

- * Contributed in a five-member team by resolving META (Facebook) Network Appliances' caching issues, and enhancing system performance and user experience in Asia-Pacific region through algorithm optimization and ISP collaboration.
- * Led the design and implementation of an advanced crash reporting system, utilizing Python for backend development. Analyzed crash data to identify underlying issues, successfully debugging and refining code, which led to a 35% improvement in application stability and service quality.
- * Collaborated closely with the Facebook Network Appliance team in an Agile development environment. Utilized expertise in software development and Ericsson service management tools to diagnose and resolve critical software issues, effectively reducing system downtime by 10% in six months.

Central Manufacturing Technology Institute

Bengaluru, India

Python Developer Intern

Jun 2021 – Sep 2021

- * Simulated universal robot on Gazebo using python, reduced cost of labor by 20% and human error by 10%.
- * Transformed manufacturing challenges into software solutions, crafting use cases and data models achieving a 35% cycle time reduction

Verzeo

Bengaluru, India

Machine Learning Intern

Feb 2020 – Mar 2020

- * Strategically harnessed Python-based Data Analytics, Machine Learning, and AI techniques for in-depth exploratory data analysis (EDA) on datasets exceeding 100 GB, resulting in a 10% improvement in data-driven decision-making efficiency.
- * Analyzed and synthesized classification models including K-nearest neighbors (K-NN), Support Vector Machine (SVM), and Logistic Regression in Cytopathology data research, successfully deducing SVM's highest accuracy rate of 97.2% for breast cancer diagnosis.
- * Boosted price prediction accuracy by 15% through the implementation of a linear regression model on GitHub's Appstore games data, using game features as independent variables and app prices as dependent variables.