

EDUCATION

Manipal Institute of Technology | Manipal, Karnataka

Bachelors of Technology in Computer and Communication Engineering

May 2025

GPA: 8.33/10

Relevant Courses: Data Mining and Predictive Analysis, Data Structures, Design and Analysis of Algorithms, Database Systems, Object Oriented Programming

TECHNICAL SKILLS

Python, C++, Java, C, Pandas, NumPy, ScikitLearn, Tensorflow, Keras, SQL, Matplotlib, Seaborn, BeautifulSoup, Feature Engineering, Deep Learning, Transfer Learning, Data Analysis, Data Visualisation, Microsoft Excel, BotPress

PROJECTS

Portfolio Optimization and Risk Analysis of NIFTY Tech Stocks

- Developed a Python-based model to optimize a NIFTY tech stock portfolio, focusing on maximizing risk-adjusted returns.
- Achieved optimal asset allocation using Monte Carlo simulations and calculated Value at Risk (VaR) and Conditional VaR (CVaR) to assess portfolio downside risk.
- Applied statistical analysis and optimization techniques to provide insights into asset performance and portfolio stability under market stress.

Short-term Forex Prediction using Machine Learning

- Developed a project to predict currency prices using machine learning models like LSTM and GRU.
- Implemented a 10-day iterative prediction method and compared model performance using metrics like MSE and MAE.
- Created visualizations to showcase the accuracy of each model's predictions.

Predictive Modelling for Liver Disease Classification

- Worked with the Indian Liver Patient Dataset, performing data preprocessing to address inconsistencies and errors.
- Applied machine learning algorithms including Logistic Regression, KNN, Random Forest and SVM. Utilized K- Folds cross-validation to enhance model reliability and systematically evaluated model performance.

Research Projects | Manipal Institute of Technology

- Authored and presented the paper "Predictive Modelling for Safer Commutes" at ISBM 2024, Bangkok; proceedings to be published in Springer Nature.
- Authored and presented the paper "Comparative Analysis of Deep Learning Architectures for Rice Crop Image Classification" at ICAIS 2024.
- Submitted a patent and authored a research paper titled "System and Method for Enabling Deep Learning-Based Gemstone Categorization Using Transfer Learning," currently under review.

PROFESSIONAL EXPERIENCE

Project Intern | Finrex Treasury Consultants

July 2024- September 2024

- Developed a Forex signal system for INR price movements using economic indicators and past company decisions.
- Utilized feature engineering and hyperparameter tuning techniques to optimize machine learning model performance and accuracy.
- Conducted comprehensive Exploratory Data Analysis on technical indicators to assess their impact on Forex price trends.

Data Science Intern | Swaroop.ai

May 2024- June 2024

- Worked on building a voice cloning and translation system that replicates voices and translates them into over 10 languages using minimal sample data.
- Implemented advanced TTS models and fine-tuned them to enhance accuracy. Utilized Google Cloud API for seamless translation and transcription, forming a complete end-to-end solution for voice cloning and translation.

Freelance Development | BlackSynq

September 2023- May 2024

- Developed AI chatbots and automation solutions at BlackSynq, collaborating with major clients such as IMFS and Adonis Medical Systems to address their AI, automation, and data analysis needs.
- Delivered innovative technological solutions that enhanced operational efficiency and improved data-driven decision-making for top-tier clients.

Head of Operations | Instrumus

September 2022-September 2023

- Led client communications and successfully onboarded multiple clients, enhancing customer relationships and satisfaction.
- Crafted investor pitches and conducted market research to drive strategic outreach initiatives, contributing to business growth.
- Oversaw a team of four interns, providing mentorship and guidance to optimize operational efficiency and project execution.

CERTIFICATIONS AND SPECIALIZATIONS

IBM DATA SCIENCE [\[Certificate\]](#)

- Completed a 10 course specialization on Data Science provided by IBM on Coursera.
- Learnt important skills like Data Analysis, Databases with SQL, Data Visualisation, Machine Learning for Data Science.

MACHINE LEARNING A-Z: AI & Python [\[Certificate\]](#)

- Completed this extensive Machine Learning course covering regression, classification, clustering, NLP, deep learning, and more in Python.
- Gained practical experience by applying learned concepts to real-life case studies, providing valuable hands-on exposure to diverse Machine Learning scenarios.

BIG DATA SPECIALIZATION | Minor at Manipal Institute of Technology

- Currently pursuing a Minor Specialization in Big Data.