

Kriish Solanki
Bachelors Of Technology
Computer Science & Engineering
Minor in Financial Technology (Fintech)

# **EDUCATION**

### •Manipal Institute of Technology, Karnataka

CGPA: 8.37 (Ranked in the top 5% of my graduating batch)
Semester-wise GPA: 7.36, 7.18, 8.54, 9.38, 8.76, 8.80, 8.80

B.Tech CSE | 2021-2025

February 2025 - Present

July 2024 - August 2024

### Relevant Work Experience

# •Jainam Broking Limited, Gujarat

Quantitative Research & Development Intern

 Conducting research on financial markets and implementing algorithmic trading strategies, progressing towards developing proprietary strategies.

#### •ThoughtFocus, Bangalore

Software Engineering Intern

- Worked on the Gen3 Transaction Switch Platform, gaining experience in transaction processing & mPOS solutions.

#### PROJECTS

#### •TTS Distinction in Human Voices

Python, TensorFlow, Deep Learning (CRNN)

Human Speech Authentication Model

- Developed a deep learning model to differentiate human speech from text-to-speech (TTS) systems.
- Utilized Convolutional Recurrent Neural Networks (CRNN) and extracted key features (MFCCs, mel-spectrograms, Chroma).
- Achieved an F1-score of 0.88 and an Equal Error Rate (EER) of 18.89% through hyperparameter tuning, enhancing secure voice authentication.

### • Loan Loss Prediction Using ARIMA

Python, Time Series Forecasting

 $Risk\ Management\ \&\ Forecasting\ Tool$ 

- Developed a Credit Risk Indicator (CRI) using outstanding loan balances at various DPD stages and roll rates, applying ARIMA modeling for loan loss forecasting.
- Ensured stationarity via ADF tests and differencing, optimized parameters using ACF/PACF analysis
- Conducted residual diagnostics, including normality assessment, distribution validation, and autocorrelation analysis.

# • Non-Touch Input Device

 $Python,\ Opencv,\ TensorFlow$ 

Hand Gesture Control System

- Engineered a gesture-based interface for hands-free PC control using MediaPipe for hand tracking.
- Developed a quick-access toolbar with character recognition for seamless navigation and interaction.
- Implemented a client-server communication model, enabling gesture-based control across multiple devices.

### Courses & Certifications

- •Neural Networks and Deep Learning: DeepLearning.AI, Coursera
- $\hbox{\bf \bullet Convolutional Neural Networks:} \ \ {\bf Deep Learning. AI, \ Coursera}$
- •Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization: DeepLearning.AI, Coursera

## ACTIVE RESEARCH

• Credit Card Fraud Detection using Homomorphic Encryption: Leveraged machine learning to detect fraud while preserving privacy with homomorphic encryption.

# TECHNICAL SKILLS

- •Languages: Python, SQL, C
- •Libraries/Frameworks: Scikit-Learn, Pandas, NumPy, Matplotlib, OpenCV, Django, Hadoop, CUDA, MPI, OpenCL
- •Relevant Coursework:
- -Database Systems
- -Machine Learning
- -Deep Learning
- -Probability Theory & Statistical Methods
- -Discrete Mathematics & Algebraic Structures
- -Linear Algebra & Differential Equations
- –Multivariate Calculus & Mathematical Analysis
- -Data Structures & Applications
- -Design And Analysis Of Algorithms
- -Distributed Systems
- -Parallel Computer Architecture and Programming