Kriish Solanki

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

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GitHub Profile
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Education

•Manipal Institute of Technology, Karnataka
CGPA: 8.37 (Ranked in the top 5% of my graduating batch) B.Tech CSE | 2021-2025
Semester-wise GPA: 7.36, 7.18, 8.54, 9.38, 8.76, 8.80, 8.80

•Scholar English Academy, Surat
Percentage: 93.8% Senior School, CBSE | 2021

•Delhi Public School, Surat
Percentage: 94.6% Secondary School, CBSE | 2019

Relevant 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 techniques to enhance model reliability, and performed ACF/PACF analysis for optimal parameter selection.
- Conducted residual diagnostics, including normality assessment, distribution validation, and autocorrelation analysis.

• JioStock Insights *Python*
Quantitative Analysis of Jio Stock Performance vs. Market Indices

- Conducted sensitivity analysis of Jio stock vs. NIFTY & SENSEX to assess market performance.
- Implemented SMA and EWMA to evaluate and forecast stock trends.
- Applied linear regression, residual analysis, and volatility assessments to derive market correlation insights.

• 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.

Relevant Courses & Certifications

- **Neural Networks and Deep Learning:** DeepLearning.AI, Coursera
- **Convolutional Neural Networks:** DeepLearning.AI, Coursera
- **Finance for Non-Financial Professionals:** University of California, Coursera

Active Research

- **Credit Card Fraud Detection using Homomorphic Encryption:** Leveraged machine learning for fraud detection, utilizing GenAI & other oversampling techniques for synthetic data generation, while preserving privacy with homomorphic encryption.

Technical Skills

- **Languages & Tools**: Python, SQL, Excel (Basic Proficiency)
- **Relevant Coursework**:
  - Database Systems
  - Machine Learning
  - Deep Learning
  - Probability Theory & Statistical Methods
  - Financial Management
  - Financial Econometrics
  - Fintech Services
  - Engineering Economics & Financial Management
  - Discrete Mathematics & Algebraic Structures
  - Linear Algebra & Differential Equations
  - Multivariate Calculus & Mathematical Analysis
  - Data Structures & Applications
  - Design And Analysis Of Algorithms
  - Object Oriented Programming
  - Technology for Finance