## Yashwanth Krishna Devendran

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## **EDUCATION**

- B.Tech in Artificial Intelligence and Data Science: Shiv Nadar University, Chennai Jul 2023 - Jul 2027 CGPA: 9.59 (up to III Semesters)
Core Member, Coding Club and Data Science Team

## **PROJECTS**

- Auto-Screen: Instagram Chat Analyzer for NIA Agents: Python, OpenCV, NLP, SpaCy, Transformers, OCR, Tkinter GUI Feb-2025 May-2025
  - Developed a desktop app to aid cybercrime investigations by analyzing Instagram chat exports.
  - Integrated OCR, keyword spotting, and dense captioning to flag high-risk content and generate evidence screenshots.
  - Implemented multi-threaded scraping, multilingual text recognition, and image filtering for efficient analysis.
  - Designed GUI for agents to monitor flagged chats and export summaries securely.
- Predictive Maintenance for Industrial Equipment: Python, scikit-learn, XGBoost, Time Series Analysis, AWS
  SageMaker
  Jun 2024 Sep 2024
  - Built predictive models forecasting machine failures using sensor data, reducing downtime by 20%.
  - Engineered features such as rolling statistics and FFT to capture temporal patterns.
  - Used ensemble models and cross-validation achieving 92% accuracy and 0.85 F1-score.
  - Deployed models on AWS SageMaker for real-time inference integrated with factory alert systems.
- Credit Risk Prediction and Customer Segmentation: Python, Pandas, scikit-learn, SMOTE, Logistic Regression, Clustering Dec 2023 – Jan 2024
  - Developed credit risk model predicting loan defaults with imbalanced data handling (SMOTE).
  - Achieved improved recall (+15%) while maintaining precision using gradient boosting.
  - Explained model decisions using SHAP values for regulatory compliance.
  - Segmented customers via K-means clustering to optimize risk mitigation strategies.

## TECHNICAL SKILLS

- Programming Languages: Python, Java, C++, C
- Frameworks & Libraries: scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, Matplotlib, Seaborn, spaCy, NLTK
- Machine Learning Skills: Predictive Modeling, Time Series Analysis, Imbalanced Data Handling, Feature Engineering, Model Explainability (SHAP), Model Deployment
- Tools & Platforms: AWS SageMaker, Docker, Flask, Tableau, Git, Linux
- Certifications:
  - Complete Machine Learning & NLP Bootcamp with MLOps Deployment (Udemy) Ongoing
  - Affective Computing Indraprastha Institute of Information Technology, Delhi (NPTEL25CS04S343213561) Issued May 2025
  - Machine Learning with Python Cognitive Class Issued May 2025
  - Statistics Stanford University Issued Aug 2024
  - Data Visualization with Python IBM Issued Jul 2024
  - Responsive Web Design freeCodeCamp Issued Apr 2024