Pranay Saha

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💼 PROFESSIONAL EXPERIENCE

Indian Statistical Institute, *Research Fellow* 🔗   May 2023 – present
     Kolkata, India
- We designed a **novel symmetry-based method for Person-Vehicle Reidentification** using a Neural Network trained on 4 datasets.
- Orchestrated the design and implementation of **data ingestion, model and inference pipelines**, Utilized pre-trained models, for text spotting, and fine-tuned them to improve performance on 60000+ images.
- Implemented and optimized **data cleaning pipelines, reducing data cleaning time by 30%.**
- Conducted a **comparative analysis, demonstrating an approximately 8% improvement in accuracy** compared to existing models (State-of-the-Art).

Yubky, *Machine Learning Engineer*   Feb 2023 – present
     Remote
- Led the ML team and collaborated with **10** developers in the strategic development of **Facial Recognition, Liveliness, Speech, and Audio Processing for Video KYC**.
- Implemented **information extraction from documents and analysis**, contributing to a comprehensive and state-of-the-art KYC solution.
- Designed and secured an efficient KYC system, achieving a remarkable cost reduction from **$130 to $4 per verification**.

📁 PROJECTS

FACE2COMIC 🔗
- Developed a **Generative model for generating comic avatars from original face images.** Leveraged the adversarial learning concept to achieve a **3%** noise reduction and seamless blend of realism and artistic expression.
- My contributions resulted in the successful development of a model for generating high-quality, comical avatars that can be used in various applications, such as social media and entertainment.

Signature Verification 🔗
- Created a Neural Network for signature verification that achieved an impressive accuracy rate of **96.5%** on a dataset of 5000+ signature samples.
- Analyzed the generated embeddings for both real and forged signatures and compared them for verification, resulting in a **7% reduction in false positives**.
- The model can be fine-tuned and used in various industries for signature verification, resulting in increased efficiency and reliability.

🎓 EDUCATION

B-Tech -CSE(AIML), *Institute of Engineering Management*   Nov 2020 – Aug 2024
     Kolkata, India
CGPA-9.01
Courses: *Data Structures and Algorithms, Machine Learning, Pattern Recognition, Database Management System, Object Oriented Programming*

🧠 SKILLS

Languages (Python,Java,SQL)

Technologies/Frameworks (Git, Docker, MongoDB, Postman, PyTorch, TensorFlow, Keras, Weights and Bias, Scikit-Learn, Open-CV)

🖳 POSITION OF RESPONSIBILTY

GDSC AIML Lead   Aug 2022 – Aug 2023

E-Cell R&D Member   Sep 2021 – Oct 2022

Sponsorship Team Lead IEM MUN   Sep 2022 – Oct 2022