

Danishjeet Singh

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Education

Indiana University, Bloomington

B.S. in Computer Science | 3.62 GPA

Minor: Data Science & Statistics

Bloomington, IN

May 2024

Skills

Python (Pandas, NumPy, scikit-learn, matplotlib, PyTorch), SQL(Postgres, MongoDB), JavaScript(React) R, Java, HTML, CSS(Tailwind, Bootstrap) Latex, Git/Terminal, Linux

Experience

Observatory on Social Media, Indiana University

Research Assistant

Bloomington, IN

January 2023 - Present

- Revamped Twitter API data pipeline, achieving a 99% increase in download speed through expert implementation of multiprocessing and asynchronous calling in Python.
- Built swift and efficient algorithms using computer vision to detect AI generated faces on the Twitter platform with 90% accuracy.
- Managed a team of 5 graduate students in developing a deep learning-based approach utilizing advanced architectures like Mask R-CNN to identify GAN generated human faces, showcasing strong leadership and mentoring skills

IU Computer Vision Lab, Indiana University

Research Assistant

Bloomington, IN

May 2022 - January 2023

- Conducted research on the application of Deep Learning techniques, including Convolutional Neural Networks(CNN's) and Generative Adversarial Networks(GAN's), for object and image recognition.
- Applying various dimensionality reduction techniques to analyze the relationship between the size of training datasets and the performance of classifiers, using visualizations to facilitate understanding.

Projects

Generative Adversarial Network Classifier

- Proficiently built and trained a deep learning model that produced a large number of novel and visually appealing images from the MNIST dataset.
- Developed a robust classifier model capable of accurately identifying generated and authentic images, achieving a high accuracy rate of 93%

Bankist App

- Conceptualized and formulated the idea, digital assets and product cycle of a simulated banking app.
- Established a marketing website along with a prototype of the banking app using JavaScript to generate advertisement and user activity and gained over 200+ visits.

Activities

Google Developer Student Clubs

Technical Lead

Bloomington, IN

Sep 2021–Present

- Delivered engaging machine learning lectures, covering SVM, CNN, and other architectures, and created hands-on image classification projects with PyTorch, showcasing strong communication, pedagogical, and technical skills
- Introduced advanced topics like style transfer and GANs, providing students with exposure to cutting-edge techniques, demonstrating a deep understanding of modern machine learning advancements.