ANUBHAV SACHAN

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EDUCATION

National Institute of Technology, Silchar
Bachelor of Technology, Electronics and Communication Engineering — June 2021

Puranchandra Vidyaniketan, Kanpur
Intermediate (with Computer Science), Central Board of Secondary Education — May 2016
Matriculation, Central Board of Secondary Education — May 2014

TECHNICAL EXPERIENCE

Indian Institute of Technology Indore — May - July 2019
Summer Intern, Pattern Recognition in Biometrics

- Developed a deep learning based *Fingerprint Recognition System* using the multitask deep convolutional neural network architecture to extract fixed length representational features from a high resolution fingerprint image.
- Developed an augmented deep architecture to achieve domain adaptation in the fingerprint recognition system.

Motilal Nehru Indian Institute of Technology Allahabad — December 2018
Winter Intern, Machine Learning

- Implemented one of the challenges of the Twelfth International Conference on Document Analysis and Recognition (ICDAR) to create a project on *Gender Prediction from Handwriting*.

SKILLS & INTERESTS

Machine Learning: Pattern Recognition using Deep Learning in PyTorch framework.

Programming: Python 3.6 (PyTorch, Flask, PyPI) and familiar with C++, C, and Java SE8.

Utilities: Git VCS, Bash Scripting, LaTeX, Web Designing (HTML5, CSS3, php), Adobe Photoshop & Lightroom.

Interests: Advanced Pattern Recognition, Sentiment Analysis, Data Analytics, Neural Networks and Algorithms.

ACHIEVEMENTS

- National Level Finalist in the Software edition of Smart India Hackathon 2019 organized by Ministry of Human Resource Development, Government of India at National Institute of Technology Warangal.
- Recipient of Prime Minister Scholarship Scheme with AIR 729 & Google India Challenge Scholarship in 2018.
- State Level (Stage I) qualified in National Talent Search Examination (NTSE).

PROJECTS

Fingerprint Recognition System based on Deep Learning Architecture — May - July 2019
Pattern Recognition, Deep Learning (using PyTorch)

The customized deep learning based fingerprint recognition system using the multitask convolutional neural network architecture has been developed to extract fixed length representations of a fingerprint image. The genuine and imposter score distributions are generated by calculation the cosine similarity score between the extracted features.

Unsupervised Deep Domain Adaptation using Backpropagation — June - July 2019
Deep Learning (using PyTorch framework)

The concept of domain adaptation in the absence of labelled training data for a deep learning architecture (DeepResPore) was implemented by augmenting the given deep neural network with the proposed new gradient reversal layer.

Patient Case Similarity (SIH 2019, NIT Warangal) — February - March 2019
Natural Language Processing

The project is used to determine the similarity between two patients using word mover distance clustering and feature vector techniques. It was done as part of grand finale (Software Edition) of Smart India Hackathon 2019.

The Bing Scraper — July 2018
Web Scraping, Python 3

Python3 package uploaded on python package index (`https://PyPI.org/`) for the extraction of content (images and text) on Bing using the concept of HTML Parsing.