Abhishek Verma

abhishekvermasg@gmail.com | +91 7388057575

LINKS

Github: **abhishekvermasg**
LinkedIn: **abhishek-verma**
Webpage: **abhishekvermasg**

EDUCATION

IIIT ALLAHABAD

B. Tech, M. Tech Dual Degree in Information Technology
2013 - 2018
B. Tech CGPA: 8.78
M. Tech CGPA: 8.53

SKILLS

PROGRAMMING

• Python • TensorFlow • OpenCV • NumPy • Pandas • Scikit-Learn • MySQL •Bash

PROFICIENCY AREAS

• Deep Learning • Machine Learning • Computer Vision

ACHIEVEMENTS

• 695 reputation points on stackoverflow.com
• Speedsolving Rubik's Cube (26.60s)

PERSONAL PROJECTS

• Quote Image Generator
Generates an image with a soothing colour of quote given the text •
Tweet Automation
Automatically send tweets without any hassle
• Medium Scraping
Scrape Medium to get actionable insights into what people like to read and write
• Open Source Contributions
UCSC Xena Client

WORK EXPERIENCE

TCS Research Labs | Researcher

Aug 2018 – Present | Gurugram, Haryana

- Developed a Adversarial Neural Network for tackling background noise, blurring, watermarks and fading in scanned documents using unlabelled data.
- Developed a Transformer Neural Network for reading handwritten text. Reduced memory footprint by 12% and number of parameters by 40%.
- Developed a Graph Neural Network for discerning the structure of a table from its image by establishing row and column relationships between cells.
- Developed a Resume Table Information Extraction System for both ruled and unruled tables
- Technologies Used: Python, TensorFlow, OpenCV, NumPy, Scikit-Learn

PUBLICATIONS

An Interpretable SVM Based Model for Cancer Prediction in Mammograms

Networks and Computing 2018 | Gwalior, Madhya Pradesh

- Mammographic images are widely used tool to predict breast cancer, but the classification by SVMs are not intuitive. Our aim is to counter this problem by employing a novel method of using multiple SVMs to elucidate the area affected by cancer. We also color-code the patches for further clarification.

Learning to Clean: A GAN Perspective

ACCV 2018 | Perth, Australia

- The scanning process of documents often results in the introduction of artifacts such as background noise, blur due to camera motion, watermarking, coffee stains, or faded text. We have used GANs to generate denoised versions of the noisy documents. Experiments were performed on a public document dataset on which different types of noise were artificially induced, results demonstrate that CycleGAN learns a more robust mapping from the space of noisy to clean documents.

PROJECTS

Biological Data Analysis | Big Data, Bioinformatics | Spark, OpenStack Cloud, Java | 6 months

Biological data is always huge and hard to analyze, but Spark provides large-scale data processing and performs better than Hadoop. I have implemented various tools like extracting PDBs from coordinate files, average structure of proteins, RMSD for proteins and other tools.

Administration Department Automation Software | Software Development | PHP, MySQL, HTML | 1.5 years

Developed Automation Software for the Administration Department which is currently installed and working in IIIT Allahabad. The software automates the manual tasks of the employees of the Administration Department in IIIT Allahabad such as generation of transcripts, grade cards, declaration of results, admitting new students etc. The software comprised 25 tables and more than 15K SLOC.