Suyog Jadhav

EDUCATION

IIT (ISM), DHANBAD
BTech in Electronics and Communication
May 2021 | Dhanbad (JH), India
Cum. GPA: 8.19 / 10.0

MODERN COLLEGE, PUNE
Grad. May 2017 | Pune (MH), India

LINKS

Mail
Website
Google Scholar Profile
Complete Unabridged Resume

Github:// IAmSuyogJadhav
LinkedIn:// IAmSuyogJadhav
Twitter:// IAmSuyogJadhav

SKILLS

PROGRAMMING
Very Familiar:
Python • PyTorch • API and backend development (Flask) • Linux • Git • Google Cloud Platform
Over 1000 lines of code:
C • C++ • Matlab • Regex • CSS • Keras • TensorFlow
Familiar:
Shell • Javascript • Batch

AWARDS

Gold Medal | Dec 2019
Ashoka's Tech for Change Challenge at 6th Inter-IIT Tech Meet

2nd/150 teams | Sep 2019
CDAC AI Hackathon 2019 sponsored by Nvidia

4th/300 teams | Jan 2019
PanIIT Mission AI: Solve for India Hackathon

Rank 6664th/12M | May 2017
All India Rank in JEE (Advanced) 2017

EXPERIENCE

UIT- THE ARCTIC UNIVERSITY OF NORWAY | Research Intern
Apr 2020 - Aug 2020 | Tromsø, Norway
Worked on two different projects during the course of this internship.

- Application of deep learning for illumination estimation in Fourier ptychography microscopy (FPM); manuscript submitted to the Optics Express journal.
- Artefact removal from MUSICAL nanoscopy images using deep learning; manuscript submitted to the Neural Networks journal.

CANCER MOONSHOT INC. | Deep Learning R&D Intern
Jun 2019 – Jul 2019 | Bangalore (KA), India
Worked on developing deep learning models for detection and segmentation of prostate cancer legions from the prostate MRI scans.

- Trained UNet model with some modifications to fit the extremely small ground truth labels. The dataset used was very small, I used data augmentation to increase the effective dataset size and improve the performance of the model.

CYBER LABS - IIT (ISM) DHANBAD | AI Team Leader
Jul 2019 - Present | Dhanbad (JH), India

- My team works on various projects that utilise machine learning. We also conduct workshops, hold paper reading sessions and organize machine learning competitions in the college.

PAST RESEARCH PROJECTS

ARTEFACT REMOVAL FROM NANOSCOPY IMAGES | Aug 2020
MUSICAL is a nanoscopy method that produces a high-res output from a temporal stack of fluorescence microscopy images. Due to the noise in the data, the produced MUSICAL image has background debris and reduced resolvability. I worked on simulating 3 different structures (actins, vesicles and mitochondria) and training autoencoder models for denoising the MUSICAL images. Various loss functions were explored and their performance was evaluated. Under the guidance of Dr. Krishna Agarwal and Dr. Dilip K. Prasad.

DEEP LEARNING IN FOURIER PTYCHOGRAPHY | Jun 2020
Fourier ptychography is a microscopy technique that uses low-resolution images taken from multiple illumination angles to generate a high-resolution image. I implemented the complete pipeline including the illumination angle estimation model, automatic calibration algorithm, and the final reconstruction algorithm adapted from Aidukas et. al. 2018. For illumination estimation, I trained an object detection model to locate the "pupil" in the Fourier spectra of the input images to estimate the illumination. Under the guidance of Dr. Krishna Agarwal and Dr. Dilip K. Prasad.

↦ Details about more projects can be found on my GitHub profile

PUBLICATIONS

[1] S. Jadhav, U. Bamba, A. Chavan, R. Tiwari, and A. Raj. Multi-plateau ensemble for endoscopic artefact segmentation and detection. *Proceedings of the 2nd EndoCV Workshop in conjunction with the 17th IEEE ISBI*, Apr. 2020.

[2] S. Jadhav and D. K. Prasad. invited talk on "machine learning based analytics from wearable sensors". *workshop on Machine Learning and its Application in Sport Science and Public Health, TU Munich, Munic, Germany*, Feb. 2020.