# Suyog Jadhav

## EDUCATION

**UIT NORWAY**
MS in Computer Science
May 2023 | Tromsø, Norway

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

## 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/SCORES

**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

**2ND Rank | Apr 2020**
EndoCV Challenge (Single Frame Object Detection track), 17th IEEE ISBI (2020) [2]

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

**IELTS Band 8/9 | Oct 2020**
CEFR Level: C1

## EXPERIENCE

**INTVO** | Freelance Deep Learning Developer
Jan 2021 – Mar 2021 | Ann Arbor (MI), USA
Developed edge computing solution for performing computer vision inference in an autonomous vehicle. The system consisted of multiple cameras and inference routines that all needed to run in parallel. Python's native multiprocessing and multithreading libraries were used alongside TensorRT to parallelize the computation and optimize the inference times for real-time performance.

**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);
- Artefact removal from MUSICAL nanoscopy images using deep learning.

## PAST RESEARCH PROJECTS

**T.A.L.K. (BACHELOR'S THESIS)** | May 2021
Under the supervision of Dr. J. Thangaraj. Developed a system for translating the American sign language gestures in real-time. Small and lightweight PCBs were designed to gather the motion data from 13 different points on the hand, replacing bulky cameras used in traditional approaches. The data is then fed to an LSTM-based model for the final translation. Can be thought of as text-to-speech, but for sign language. The work was hindered partway through due to the pandemic.

**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. The produced MUSICAL image has artefacts due to input noise. I worked on simulating 3 different subcellular structures and training autoencoder models for denoising the produced MUSICAL images. *Accepted in Biomedical Optics Express (Dec. 2020)* [1].

**DEEP LEARNING IN FOURIER PTYCHOGRAPHY** | Jun 2020
Fourier Ptychography is a microscopy technique that uses low-res images taken from multiple angles to generate a high-res image. I implemented the complete pipeline including the object detection based illumination angle estimation model, calibration and the final reconstruction algorithm adapted from Aidukas et. al. 2018. *Published in Optics Express Journal (Dec. 2020)* [3].

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

## PUBLICATIONS

[1] S. Jadhav, S. Acuña, I. S. Opstad, B. S. Ahluwalia, K. Agarwal, and D. K. Prasad. Artefact removal in ground truth deficient fluctuations-based nanoscopy images using deep learning. *Biomedical optics express*, 12(1), Jan. 2021.

[2] 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.

[3] F. Ströhl, S. Jadhav, B. S. Ahluwalia, K. Agarwal, and D. K. Prasad. Object detection neural network improves fourier ptychography reconstruction. *Opt. Express*, 28(25):37199–37208, Dec 2020.