





# SWADESH JANA

C S E   U N D E R G R A D U A T E

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## EDUCATION

### BE - Computer Science & Engineering

Jadavpur University  
Kolkata, India  
2019-2023  
Average GPA: 9.44

### Higher Secondary (Science)

South Point High School  
Kolkata, India  
2017-2019  
AISSCE (XII) - 96.4%

## SKILLS

- Languages: Python, C/C++, Java, Javascript.
- Frameworks: TensorFlow, Keras, PyTorch, OpenCV, Scikit-Learn.
- Backend: Node JS, Servlets.
- Frontend: HTML, CSS, React
- Database: SQL, MongoDB.
- Tools: Git, Jupyter and LATEX.

## EXPERIENCE

### RESEARCH INTERN

TCS Innovation Labs, Mumbai | May - Jul 2022

- Generalization of Lottery Ticket Hypothesis + channel pruning technique for model compression

### RESEARCH INTERN

Google Summer of Code at Red Hen Lab | Jun - Aug 2021

- Hand Gesture Recognition in Videos using OpenPose, 3D CNN, and LSTM. Project link: [summerofcode.withgoogle.com](https://summerofcode.withgoogle.com)
- Invited to Oxford IMCC online talk: [youtube](https://youtube)

### SECRETARY, AI LEAD

DevHub, Jadavpur University | Jan 2021 - Current

- Managing a community-based developers group
- Sessions on ML topics. Videos posted at [youtube/devhubju](https://youtube/devhubju)

## PROJECTS

### FACE ANTI-SPOOFING USING TEXTURES AND DEEP LEARNING

Under-Graduate Research Project | May 2022 - Current

- Developing texture-based and deep learning methods for face anti-spoofing on multiple datasets.

## ACHIEVEMENTS

- JBNSTS 2019 Senior Scholar
  - Rank 49 (Top 2%) in [SIIM-ISIC Melanoma Classification](#), 2020
  - Letter of Recognition from State for AISSCE results
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## HOBBIES

- Reading books
  - Playing Sports (Tennis, Cricket) and Chess
  - Playing the Bamboo Flute
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## LANGUAGES

- English - Professional fluency
- Bengali - Native fluency
- Hindi - Working fluency

## AIR POLLUTION PREDICTION USING SPATIO TEMPORAL GRAPH CNN

**Under-Graduate Research Project | Oct 2021 - Feb 2022**

- Ongoing project on applying novel Spatio-Temporal Graph-based CNN model for air pollution prediction.
- Codebase: [github.com/Swadesh13/Pollution-STGCN](https://github.com/Swadesh13/Pollution-STGCN)

## ADDS: ATTENTION-BASED DETECTION AND TRAJECTORY PREDICTION IN COUNTER-DRONE SYSTEMS

**MLDS India Conference Paper | January 2022**

- Transformer Encoder-Decoder based 2D trajectory prediction of drone in videos.
- Inspiration from Anticipative Video Transformer.

## IMAGE CLASSIFICATION & DETECTION ON ROAD ANOMALIES DATASET

**Under-Graduate Research Project | Mar - Sep 2021**

- Two papers on classification and object detection models on a self-annotated collection of road anomaly images.
- Manuscripts under review.

## NEURAL STYLE TRANSFER

**Short Coding and Documentation Project | April 2020**

- Image generation by combining content and style images.
- Code: [github.com/Swadesh13/Neural-Style-Transfer](https://github.com/Swadesh13/Neural-Style-Transfer)