

Mainak Pal

SOPHOMORE UNDERGRADUATE · JADAVPUR UNIVERSITY

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Education

Jadavpur University

West Bengal, India

BACHELOR OF ENGINEERING IN ELECTRONICS AND TELECOMMUNICATION

July, 2017 - PRESENT

- CGPA : 8.8 (till 1st year - 2nd Sem)

Mahesh Sri Ramkrishna Ashram Vidyalaya(H.S)

West Bengal, India

HIGHER SECONDARY EDUCATION

2015 - 2017

- Percentage Score – 89.4

Mahesh Sri Ramkrishna Ashram Vidyalaya(H.S)

West Bengal, India

SECONDARY EDUCATION

2006 - 2015

- Percentage Score – 92.6

Projects

Identifying and Categorizing Offensive Language in Social Media

Sep. 2018 - PRESENT

UNDERGRADUATE RESEARCH PROJECT UNDER DR. SUDIP KUMAR NASKAR, JU CSE

- Sentiment analysis on a set of tweets .
- Explored multiprocessing.
- Explored different techniques of machine learning (like Logistic Regression , Linear SVC , LinearSVC with L1-based feature selection , Multinomial NB , Bernoulli NB etc.)
- Implemented several Deep Learning networks like CNN-word2vec , attention based Bi - RNN with LSTM

Perro Gato : An Image Classifier

Sep. 2018 - Oct. 2018

INDEPENDENT RESEARCH PROJECT [CODE]

- An image classifier that uses deep learning to detect if it is a "cat" image or a "dog" image.
- Implemented Convolution Neural Network.

Cloud : A nodejs app

Jul. 2018

INDEPENDENT OPEN SOURCE PROJECT [CODE] [DEMO]

- A nodejs app deployed on Heroku aiming to help beginners finding Open Source projects

[Py]Scanner : A real-time Document Scanner

Sep. 2018

INDEPENDENT OPEN SOURCE PROJECT [CODE]

- A real-time Document Scanner application using OpenCV written in python.
- Learned OpenCV.

Real-time 2D plot of Azimuth Plane using Ultrasonic Wave Sensor (HC SR04)

May. 2018 - June. 2018

INDEPENDENT SUMMER RESEARCH PROJECT [CODE] [DEMO]

- Deployed a 2D space scanner using Ultrasonic Wave Sensor(HC SR04) in Arduino Ide and plotted output vs. Azimuth angular positions using Processing.
- Future aspects :-In the area of 3D reconstruction,latency improvement and computer vision.

Approximate-Pi

Apr. 2018

INDEPENDENT RESEARCH PROJECT [CODE] [DEMO]

- Approximated the value of pi using Processing.

Other Projects

INDEPENDENT PROJECTS

- Mosom : A weather forecast app built in PyQt. [CODE]
- Shoot The Ball : A game developed using Processing and implemented the idea of processing.js. [CODE]

Extracurricular Activity

Electrophoria'18(Departmental Freshers')

Oct. 2018 - Nov. 2018

CORE MEMBER OF WEB DEVELOPMENT TEAM

- Developed the homepage for aforesaid event. [HOMEPAGE] [GITHUB]

Jadavpur University Code Club

Sep. 2017 - PRESENT

MEMBER

- A club aims to promote an atmosphere of competitive programming among fellow students of Jadavpur University.

Skill-sets

Programming Languages , Python,C,C++,Matlab,Julia,JAVASCRIPT

Machine Learning and Deep Learning Techniques , Generalized Linear Models, Regularization Techniques, Decision Trees, Ensemble Models (Gradient Boosting, Random Forest, Voting Classifiers, etc), Convolution Neural Networks,Recurrent Neural Network, Clustering and Dimension Reduction

Data Science and Numerical Computation Libraries , Numpy, Scikit-Learn,Pandas, Matplotlib,Scypi,Gensim

Deep Learning Libraries , Keras, Tensorflow

Operating Systems, Linux, Windows

Web Backend, NodeJS,Django(Python)

Version Control, Git and Github

Typesetting Tools, Latex, Markdown

Languages, English (Professional Working Proficiency), Bengali (Native), Hindi (Professional Working Proficiency)

Fields of Interest

Machine Learning & Deep Learning, Studying, implementing the results of deep learning research papers and experimenting for improving accuracy or training time.

Robotics & Computer Vision, Studying different applications of artificial intelligence and deep reinforcement learning applied to Computer Vision and Robotics.

Natural Language Processing, Experimenting with modifications in existing neural models that can improve accuracy. Passionate about working with cross lingual information retrieval and developing technologies for Indian languages.