AMOGH JOSHI

3rd Year ECE Undergraduate

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EDUCATION

B.E in Electronics and Telecomm Engineering

University of Mumbai

July 2018 – Present GPA - 9.15/10.0

PROJECTS

Malaria Detection on Microscopic cells

May 2020

- Built an Image Classification Model for Malaria detection on Microscopic cell images using Deep Learning Techniques on NIH Gov's Official Dataset.
- Analyzed model performance by optimizing hyperparameters like LR, batch size, adding Dropouts and applied Data Augmentation to improve results.
- Model achieved Accuracy of 99.4 and AUC of 86.3

Accident Avoidance Alert System for Drivers

April 2020

- Built an Object Detection Model that detects road signs, vehicles and pedestrians and notifies it to the driver by giving a count of objects detected.
- This can help detect road signs unnoticed by the driver and reduce accidents to a great extent
- Won 3rd Prize in IEEE Technical Paper Presentation Competition 2020 held in my college for this research project.

Hand-Written Digit Recognition

March 2020

- Applied various Deep Learning and Transfer Learning Techniques on MNIST Dataset for Digit Recognition.
- Performed Comprehensive Analysis of various models like Le-Net5, AlexNet, InceptionV3, VGG19 and DenseNet and fine-tuned their performance by tweaking the hyperparamters

ACHIEVEMENTS

- Got interviewed jointly by IBM and Coursera Officials for IBM's upcoming video project.
  Was among the top performers worldwide of IBM's APPLIED AI course on Coursera and got selected for final interview after few selection rounds.
- 3rd Prize in IEEE Technical Presentation Competition 2020 for my research work titled "Accident Avoidance Alert System for Drivers".

TECHNICAL SKILLS

- PROGRAMMING LANGUAGES :
  Python | C++ | Java | HTML
- LIBRARIES :
  TensorFlow | Keras | OpenCV | Numpy | Pandas
- SOFTWARE :
  MATLAB | Simulink | Jupyter Notebook | Pycharm

RESEARCH INTERESTS

- Deep Learning
- Computer Vision
- Medical Image Analysis

EXPERIENCE

Remote Research Intern
IIIT Guwahati

May 2020 - Present

- Working on balancing Bike Usage in Bike Sharing Systems using Machine Learning Algorithms.

Remote Research Intern
NIT Surat

May 2020 - Present

- Working on COVID CT Scan Image Classifier using Deep Learning and Transfer Learning Approaches.

Winter Research Intern
IIIT Allahabad

Nov 2019 - Jan 2020

- Studied various Biomedical Imaging Modalities.
  Simulated phantoms of various shapes using K-Wave toolbox in MATLAB
- Studied various Image Reconstruction Algorithms like UBP, TR and implemented different simulation techniques like Monte-Carlo Simulation

EXTRA COURSES

- MIT 6S.191
  Introduction to Deep Learning
- Stanford CS230
  Deep Learning
- Stanford CS231n
  CNNs for Visual Recognition
- deeplearning.ai by Andrew Ng
  Deep Learning Specialization
  Tensorflow in Practice Specialization
- IBM
  APPLIED AI Course on Coursera