Nehul Oswal

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EDUCATION

State University of New York at Stony Brook, NY
Master's in Electrical & Computer Engineering — Graduating May 2021
Courses: Computational Models for Computer Engineering | Stochastic Systems | Learning Systems | Advanced Digital System Design and Generation.

Pune University, Pune
Bachelor of Engineering in Electronics and Telecommunications — Graduated May 2018
Courses: Data Structures and Algorithms | Operating System. | OOP | Soft Computing.
CGPA : 9.22/10

SOFTWARES AND TECHNOLOGIES

Languages: C/C++, Python, MS SQL, MATLAB, SystemVerilog.
Technologies: Keras, Jupyter Notebook, OpenCV, Pandas, Matplotlib, SSRS.
Skills: Problem-Solving, Deep Learning, Machine Learning, Software Development.

INDUSTRY EXPERIENCE

Yardi Software Pvt. Ltd
Software Engineer — Aug 2018 – Jun 2019
Designed Manual and Automatic Positive Pay Setup to send files directly over the FTP server to clients. Designed reports using tools like SSRS, YSL, YSR.

ACADEMIC PROJECTS

Indian Sign Language Recognition Using Deep Learning — Aug 2017 – May 2018
The project aimed at developing an interactive Mathematics textbook for visually impaired students. Developed CNNs and Long Term Recurrent Neural Networks to classify static and dynamic signs. Used Deep U-Net architecture for image segmentation. Classified static signs with an accuracy of 91% and dynamic signs with an accuracy of 69%.

Breast Cancer Classification Using Decision Tree — Nov 2019 – Dec 2019
Implemented Decision Tree algorithm from scratch for breast cancer classification. Achieved a classification accuracy of 85%. Experimented with different selection criteria like Information Gain, Gini Index.

Mining Frequent Itemset Using FP Growth Algorithm — Sep 2019 – Nov 2019
Implemented FP Growth algorithm to predict frequent items occurring together in database and determining association rules among the frequent items. Performed analysis of algorithm on various databases from UCI Machine Learning repository for various support.

Hardware Generator for Deep CNN layers — Nov 2019 – Dec 2019
Designed a Hardware generator for generating stacked CNN layers with parallelism among each layer dynamically determined to ensure maximum throughput.

Bothoven — Aug 2016 – Dec 2016
Designed an algorithm based on A* algorithm so that a robot can navigate a maze containing obstacles. This was for a competition ERYC. We stood among the top 10 participants in the country.

Autonomous Railway Luggage Management System — Jan 2017 – April 2017
Designed a metal line following robot which can be used for autonomous delivery of luggage at railways. Implemented metal line detection, path planning, obstacle detection and avoidance.