

SSN VISHNU

Academic Details			
Year	Degree	Institute	CGPA/ Marks(%)
2021	M.Tech (Dual Degree)(BTech+Mtech) EE Communications and Signal Processing	Indian Institute of Technology Hyderabad	8.47
2016	XII (TSBIE)	Narayana Chaitanya Intermediate College	9.65
2014	X (SSC)	Narayana Olympiad School	9.7

Scholastic Achievements

- National Talent Search Examination (NTSE) Scholarship Awardee
- Kishore Vaigyanik Protsahan Yojna (KVPY) Scholar
- Secured All India Rank of 1454(TOP 1 percent) in JEE Advanced 2016
- Codechef rating 4*,handle:-vishnu_ssn
- Global rank of 30 in CodeChef div2-august long challenge

Internship

Texas A&M University Research Intern(2019 may-july): Worked on predicting the strength of compound-protein
interactions using deep learning techniques. Used various deep networks like hierarchial recurrent neural networks, gated
recurrent neural networks and graph convolutional neural networks for prediction.

Skills

- Programming Languages:-C,C++,Python
- Machine Learning Frameworks:- Keras, Pytorch, Scikit learn.
- Other Tools:- Arduino, Latex, Matlab.

Relevant Courses

Data Structures Algorithms Intro to AI and ML Deep Learning Data Analytics DBMS1
Computer Architecture Advanced Digital Signal Processing Advanced Digital Communications ML in Signal processing Reinforcement Learning Information Theory ML for wireless communications

Projects

Blind Image Quality Assessment:-

- To estimate the level of quality of an image without any human opinion using deep learning techniques as a part of MTech thesis.
- Worked with Pix2pix, Unet, Pix2pixhd and Densenet architectures till now to predict the distortion map of the image and predicted overall quality from it. The results were accurate compared to the previously used methods.

Deep Learning based Channel Decoding:-

 Worked on the idea of using deep neural networks for one-shot decoding of random and structured codes as a course project in ML applications on wireless communications course

Reinforcement Learning Course Project:-

- Built environments like Pacman and Tic-Tac-Toe from scratch in python and trained using Q-learning algorithms for the
 optimal performance of the agent.
- Implemented Deep Q-Networks ,Double Deep Q-Networks and Policy gradient algorithms on Ping-pong,Mountain car and cart pole environments.

Web Development project:-

Built a shopping cart using basic html,css and java script as an introductory pet project to web development.

Positions of Responsibility

- Teaching Assistant(TA) for the course Internet of Things(IOT) in Fall 2018.
- Teaching Assistant(TA) for the course Introduction to image processing in Fall 2020.
- Teaching Assistant(TA) for the course Representation Learning in Fall 2020.
- Teaching Assistant(TA) for the course Probabilistic Graphical Models in Fall 2020.

Extra curriculars

• Participated in National Service Scheme(NSS) activities.