

# NIHARIKA VADLAMUDI

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IIIT-Hyderabad Professor CR Rao Rd, Gachibowli, Hyderabad, Telangana,500032

## EDUCATION

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<b>International Institute of Information Technology,Hyderabad</b> Bachelors in Technology + MS by Research ,LED* Electronics Communications and Engineering	<i>August 2018 - Present</i>  Overall Percentage: 7.33
<b>Mahindra Ecole Centrale ,Hyderabad</b> Bachelors in Technology Electronics and Electrical Engineering	<i>August 2016 - August 2018</i>  Overall Percentage: 9.32

## MAJOR PROJECTS

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### Handwritten Document Analysis Project (June 2019-Present)

- Working under the guidance of Prof.Santhosh Ravi Kiran.  
We aim to address existing the challenge of preserving handwritten manuscripts and palm-leaf documents.We use Fully Convolutional Deep Neural Network architectures and Reinforcement Learning approach for automated instance-level spatial layout parsing of manuscript images.
- Website: <http://ihdia.iiit.ac.in>

### Variance Reduction for Policy Gradient with Action-Dependent Factorized Baselines

- Course : CSE-975 Topics in Machine Learning (Reinforcement Learning )  
The project aims at reducing the variance using an state-action dependent baseline and evaluate the performance as the action space dimension increases.
- Link: <https://arxiv.org/pdf/1803.07246.pdf>

### Mini SQL Engine

- Course : CSE-975 Database Systems Implemented a Mini SQL Engine,with desired functionalities ,constraints and user friendly interface.

### Multi-Source Approach for Crowd Density Estimation in Still Images

- Course : CSE-975 Digital Image Processing  
Estimation of people density in intensely dense crowded scenes is very crucial due to few pixels per target, clutter and complex background. The project aim was to propose a hybrid model which relies on multiple source of information as Fourier analysis, Local binary pattern, Gray level dependence matrix (GLDM) features and Histogram of oriented gradient (HOG) for head detection to estimate the total count.
- Link : <https://ieeexplore.ieee.org/document/7947682>

### Significance of the Group Delay Feature in Speech Recognition

- Course : Digital Signal Processing The project aims at understanding the use of Group Delay in Speech technology,and its use as feature vector in speaker recognition and language identification domain.
- Link : <https://ieeexplore.ieee.org/document/4032772>

## WORK EXPERIENCE

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### Alice-Sieve Open Source Organisation

*Intern*

July 2019-Present

*Guide: Tapasweni Pathak*

- Work based on Data Collection, Data visualisation and Content Blogging.

### Medha Servo Drive Research Development, Hyderabad

*Intern*

June 2018-August 2018

*Guide: Mrs. Vasavi Vallakunta*

- Project based on Embedded Hardware System, designed and prototyped a fully functional 4-way Traffic Light Controller using Verilog (Xilinx Based).

## TECHNICAL SKILLS

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- Languages : Python, MATLAB, C, C++.
- Software Tools : MS Office, Latex.
- Modeling and Analysis : AutoCad, LT Spice, Verilog, Cadence.

## PROFILES

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- GitHub Profile : NiharikaMessi
- Codeforces Profile : Sandy789
- Kaggle Profile : Niharika Vadlamudi
- Hackerrank Profile : @neeharika11

## ACADEMIC ACHIEVEMENTS

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- Got selected for Lateral Entry - ECD program in IIIT Hyderabad among 1000 students.
- Received 1 Lakh Scholarship for 2 consecutive years in MEC, for being top 5 %
- Top 10 % in Chennai District ,Biology IAPT Exam .
- Winner in Iken Scientifica State Level Robotic Competition in Salem District, Tamil Nadu. (2012)

## EXTRA-CIRRICULARS

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Mentor at Apex Club in IIIT Hyderabad .

Attended a workshop on Hacking at IIT Hyderabad in 2017.

Attended Computer Vision and ML Workshop at IIIT-Hyderabad (2018)

Interested in Digital Art and Reading Novels.