ADITYA NATARAJAN

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EDUCATION

College of Engineering, Guindy	Computer Science and Engineering	8.93/10	2018
National Public School, Rajajinagar	XII	95.6%	2014
National Public School, Rajajinagar	X	10/10	2012

WORK EXPERIENCE

Undergraduate Researcher, College of Engineering, Guindy, Chennai, India

May - Aug 2017

- Research paper: Deep Learning Strategies for Predicting Iterative Stencil Computations
- Accepted at the 10th IEEE High Performance Computing Student Research Symposium (First author)

Research Intern, Indian Institute of Science (IISc), Bangalore, India

May - July 2016

- Re-implemented single-image depth map predictions using deep neural networks
- Architected Deep Learning classifiers for Computer Vision applications
- Literature study on Neural Turing Machines and Deep Learning concepts

PROJECTS

Video Editing Using Generative Adversarial Networks

(Skills: Python, TensorFlow)

- Used Deep Convolutional Generative Adversarial Networks to perform frame-by-frame image translations
- Successfully implemented colorization and object substitution translations

Blind Guidance and Road Assistance System

(Skills: RaspberryPi, OpenCV, Python, Javascript)

- Smart-cap wearable for visual assistance using Constrained Local Models for face tracking & emotion detection and text-to-speech modules for road sign identification
- Won 2nd place in Microsoft Code.Fun.Do hackathon. Selected for national finals held at Microsoft IDC, Hyderabad. Presented project to 500+ Microsoft employees

Gesture Controlled RC Bot

(Skills: RaspberryPi, OpenCV, Python)

- Implemented the Convex-Hull algorithm for hand gesture recognition
- Utilized Microsoft Cognitive services Computer Vision API for OCR processing

Semantic Similarity Spam Filtering

(Skills: Python, Keras)

- Built a "Corpus Based Thesaurus" using vector similarity & Principle Component Analysis
- Used deep neural networks with adaptive backpropagation to achieve an accuracy of 84%

LEADERSHIP EXPERIENCE

Membership Chair, Association for Computing Machinery (ACM) - Anna University
2017(Ongoing)

Executive Editor, <u>The Guindy Times</u> (College magazine)

2017(Ongoing)

Director, Quizzers Anonymous (College quiz club)

2016 - 2017

AWARDS

- Eligible for CBSE Inspire scholarship, for finishing in top 1% of 930,000 grade 12 students (all India)
- Awarded CBSE Certificate of Merit, for finishing in top 0.1% of 1,300,000 grade 10 students (all India)
- Won 15+ guizzes at college, inter-college and state level competitions

SKILLS

- Programming Languages: C/C++, Python, Java, HTML/CSS, PHP
- Tools: Git, Octave/Matlab, LaTeX

INTERESTS

- Writing technical articles: Published in *The Deccan Herald* (Daily readership: 450,000)
- (In the Age of Tech Singularity, Sprinting ahead in time)
- Blogging: https://adinatblog.wordpress.com
- Volunteer, Eco-watch India, Summer 2016