## ADITYA NATARAJAN

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#### **EDUCATION**

College of Engineering, Guindy	Computer Science and Engineering	8.98/10	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 10<sup>th</sup> 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
- Implemented grayscale 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 2<sup>nd</sup> 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 - 2018
•	Executive Editor, The Guindy Times (College magazine)	2017 - 2018
	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