# Siva Prasad Varma Chiluvuri

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RESEARCH INTERESTS

Statistical Signal Processing, Image Processing, Information Theory.

EDUCATION

Indian Institute of Technology Roorkee, Roorkee, Uttarakhand, India.

 $V^{th}$  vear, Integrated Dual Degree

July 2009 – present

B. Tech. in Electronics & Communication Engineering and M. Tech. in Wireless Communication

- Expected graduation date: June 2014
- CGPA: 8.9/10
- Relevant Courses: Digital Signal Processing(A+), Information & Communication Theory(A+), Artificial Neural Networks(A), Adaptive Signal Processing(A), Discrete Mathematical Structures(A+), Algorithms(Coursera).
- Thesis: Recovery of Structured Sparse Signals using Message Passing in Compressed Sensing.
- Advisor: Dr. Debashis Ghosh

#### Internships

#### Qualcomm Inc., Bengaluru, India.

May 2013 – July 2013

Interim Engineering Intern

- Implemented Deblocking algorithm on RICA platform.
- Developed a Depth Based Scene Enhancement android app which uses Disparity Maps from Stereo Images.
- Winner of Intern Idea Quest.

## Qualcomm Inc., Hyderabad, India.

May 2012 – July 2012

Interim Engineering Intern

- Developed a new system for automated audio quality testing of devices based on MSSIM.
- Prototyped on Matlab and then translated into Python using SciPy & NumPy.
- Team placed  $3^{rd}$  in Intern Idea Quest.

#### Projects

## Image Denoising using Deep Neural Networks

Guide: Dr.Manoj Tripathy, IIT Roorkee.

- Implemented MLPNN's using OpenCV to learn mapping from noisy images to noise-free images.
- Performance was compared with other denoising algorithms.
- Performance on different noise types like AWGN, JPEG quantization noise etc, was studied.

## Survey of face recognition and face detection algorithms

Guide: Dr. Vinod Pankajakshan, IIT Roorkee.

- Implemented face detection based on Neural Networks compared its performance with OpenCV's Viola and Jones classifier.
- $\bullet$  Implemented eigen faces and fisher faces based face recognition.

### Sudoku Grabber and solver

- Application recognises Sudoku and generates a solution.
- Solver is based on A\* search algorithm.

HONOURS & ACHIEVEMENTS

Recipient of MCM scholarship at IIT Roorkee during 2009-2013. Among top 0.3~% in 0.3 million that took IIT JEE in 2009.

Currently rank second in the branch as per CGPA.

Skills Languages: Python, C, C++, Matlab

Markup: HTML, CSS, LATEX

Version Control: Git

Libraries & Toolkits: Cython, OpenCV Operating Systems: Linux, Windows.

References Available on request.