# Guru Raghavendra Gorantla

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## Objective

An organized, personable and self-motivated individual pursuing graduation in Signal and Image Processing major at Department of Electrical & Computer Engineering from University of California ,San Diego . I am aspiring for a career in Machine Learning and its applications, Signal and Image Processing.

## Education

University of California, San Diego, USA.                                    2012-present

— Masters in Signal and Image Processing,
  Dept. of Electrical and Computer Engineering.

National Institute of Technology (NIT), Surathkal, Karnataka, India.

— B.Tech., Electrical and Electronics Engineering (GPA: 8.16/10.0)          2007-2011
  Thesis: Energy aware routing in Wireless Sensor networks
  Advisor: Prof. Ashvini Chaturvedi, Dept. of EE, NIT Surathkal

## Computing Skills

C++ (Data Structures), Unix, PL/SQL, PERL, IBM Data stage .
Software Packages: R , MATLAB.

## Research Interests

Machine Learning, Optimization and Signal and Image Processing

## Work Experience

Mphasis - An HP Company                                          Jun 2011 –Aug2012
Designation:- Software Engineer.
Application development that involve handling databases (PL/SQL/IBM Data stage), scientific computation and interactive UI.

## Research Projects and Industrial Training

Coding Projects:
  a.) Designed a File compression software using Huffman code and Data Structures.
  b.) Implemented a perfectly working algorithm for maintaining the Boggle Board that involves BFS, DFS search, and Ternary trie construction.
  c.) Implemented some of the data structures like BST,RST ,Ternary Trie etc.

University of California, San Diego                               Jan 2013- Present
  Thesis Advisor  : Prof. Gert Lanckriet
  Thesis : Machine Learning applications on Music.

University of California, San Diego                               Oct 2012 – Dec 2012
  Mentor :  Prof. Roger Levy
  Project:   A statistical analysis of data from a hypothetical anaphor study.

University of California ,San Diego                               Oct 2012 – Dec 2012
  Mentor :  Prof. Mohan Trivedi
  Project:   Traffic Signal Detection and Rear Lamp detection

University of California ,San Diego                               Oct 2012 - Dec 2012
  Mentor :  Prof. Mohan Trivedi
  Project :  Red Eye detection and Rectification

University of Illinois, Urbana Champaign          Jun 2010 – Aug 2010
  ITI Summer Intern - Brain Computer Interface Lab,
  Mentor: Prof. Todd Coleman, Bio Engineering Dept, UCSD
  Project: Application Of Brain Computer Interface to Video gaming

National Institute of Technology, Surathkal          Aug 2010-May 2011
  Research Assistant,
  Mentor: Prof. Ashvini Chaturvedi
  Project: Energy aware routing in Wireless Sensor networks

Image Processing Lab- National Institute of Technology, Surathkal      Aug 2010-May 2011
  Mentor: Late Prof. Durai Kannu (HOD, EE Dept, NIT Surathkal)
  Project: Image Compression Techniques in MATLAB

Electronic Corporation of India Limited (ECIL )          Summer 2009
  Summer Intern,
  Building a RISC Processor

Bhilai Steel Plant          Summer 2008
  Trainee, Electro Technical Lab.
  Industrial Training in Electro Technical Labs in Bhilai Steel Plant, Bhilai, India.

Other Projects

- Automatic Traffic and street light control using Transistors, LEDs.
- 8-bit signed parallel adder and subtractor on Xilinx 2.1i platform.
- Traffic Grooming in optical networks.

## Academic Achievements

- One the 23 research interns selected across the globe for the Information Trust Institute (ITI)Program at **University of Illinois, Urbana Champaign.**
- Secured State 1007 Rank among 150,000 students in States Engineering Entrance Exam EAMCET 2007.
- Secured All India Rank 3684 among 550,000 students in All India Engineering Entrance Exam AIEEE 2007.
- Secured All India Rank 3208 among 300,000 students in IIT- Joint Entrance Exam IIT-JEE 2007.
- Ranked among top 10 students at the Electrical Engineering Dept., National Inst. of Technology, Suratkal .

## Course work

University of California , San Diego.
  Fundamentals of Image Processing,
  Probabilistic Methods in Linguistics,
  Information Theory,
  Introduction to Machine Learning ,
  Advanced Data Structures,
  Digital Signal Processing
  Convex Optimization (this quarter)
  Big Data and analytics (this quarter)
  Web-Server Application(this quarter)

## Positions of Responsibility

- Joint-Convener Reading Room Committee (2011) NITK Surathkal (Elected Position)
- Joint-Convener, CRRESCENDO-2011 (Elected Position)
  CRRESCENDO - An INTRA College Cultural Festival.
- Boys Representative NSS- NITK Chapter (2010)