Nitesh Bharadwaj Gundavarapu

Personal Data

Place and Date of Birth:	Hyderabad, India | 04 October 1993
Address:	Plot No: 128, Flat No: 103, Sai Indira Residency Jayanagar, Kukatpally, Hyderabad - 500072
Phone:	+91 9920280692
email:	ntesh93@gmail.com

Education

2011-2015	Bachelor of Technology in Electrical Engineering (Power) **Indian Institute of Technology**, Delhi Cgpa: 8.983/10
Fall 2013	Exchange Semester in Electrical Engineering **Insa de Lyon**, France
July 2011	Intermediate at Sri Chaitanya Junior College, Hyderabad | Final Grade: 97.5%

Relevant Courses

Computer Science	Data Structures, Artificial Intelligence, Neural Networks, Computer Architecture, Networks, Databases and Data Mining
Electrical Engineering	Digital Electronics, Analog Electronics, Signals and Systems, Signal Processing, Image Processing, Power Electronics
Mathematics	Probability and Statistics, Operational Research, Introduction to Analysis and Differential Equations, Introduction to Algebra and Matrix Analysis, Game Theory

Awards and Achievements

Sept. 2014	Best Solution, Goldman Sachs Quantify 2014, in a Data Modelling and Analytics task, among 300 teams across 7 IITs. Presented the solution at Goldman Sachs India Office, Bangalore.
May. 2014	Finalist in an AI tournament at Tryst, 2014
Sept.-Dec. 2013	Recipient of the Charpak Scholarship of Excellence from the Embassy of France to pursue my exchange semester
September 2013	Successfully completed the Google Summer of Code 2013
May 2012	Recipient of the merit certificate for being among the top 7% of the students
January 2012	Among one of the winners at the Windows Phone 7 Hackathon 2012
2011	Secured a rank of 742 in IIT JEE and a rank of 62 in AP State Eamcet Examination among over 200,000 engineering aspirants
2009	Recipient of the 'Student of the year' award from the Times of India Newspaper in Education Program

Work Experience

Current | *Finmechanics*

Developing scalable Java based web services for treasury departments of banks with special focus on mathematically sound pricing and analytics of Forex derivatives. Technology heavy implementation with distributed cache and hibernate for memory management, extJS for client side, deployment on Tomcat servers.

Work Experience

May-July 2014 | *RASPIDR Project - Robert Bosch*

Built a camera mounted autonomous robot which can detect obstacles, plan path towards a target and proceed towards it. Gained good knowledge in Computer Vision, Embedded Systems, and tools like python, openCV and Raspberry Pi.

July-Sept. 2013 | *The Freenet Project - Google Summer of Code 2013*

Developed an Android Application that automatically synchronises with home freenet node and can be used to exchange node references with peers.Gained practical experience in networks, distributed development, network security, cryptography, android development, and P2p technologies like Bluetooth, Wi-Fi Direct etc.

Projects Undertaken

Jan.-May 2015 | *Emotion Classification from EEG Data*

This is a supervised machine learning project involving feature extraction, feature selection and learning to classify human emotions using EEG Data. Tackled research problems involving selecting features from high dimensional data with limited data points. Implemented a novel two layer SVM approach as an alternative to standard feature selection algorithms. Implemented various feature selection approaches like FCBF, ReliefF, Information Gain and various classifiers like Naive Bayes, Neural Network, SVM, MCM etc. Achieved accuracy of 65% which is comparable to the state of the art. The tools used were MATLAB, libsvm, weka. - *under Dr.Jayadeva*

July-Dec 2015 | *AI Agent for Quoridor*

Developed an agent for Quoridor in C++ and reached the semi-finals of Artificial Intelligence class tournament. Developed strategies to dynamically manage branching factor and depth for mini-max depending on the progress of the game and the time elapsed. - *under Dr.Mausam*

July-Dec 2014 | *Wireless Sensor Network Applications in Power Systems*

Implemented a mesh network of sensor nodes with each node sensing AC RMS Voltage, RMS Current and Power in hardware using Digi865LP nodes. - *under Dr. Madhusudan Singh*

Jan.-May 2014 | *Ultrasonic Ranging in Smartphones*

The objective of this project is to find the distance between commercially available mobiles using ultrasonic acoustics. Two approaches, one involving measuring of time difference of arrival (TDOA) between an RF and an acoustic signal and another involving two acoustic signals (BeepBeep Algorithm) were implemented. Gained first-hand experience in research while learning the practical applications of Signal Processing. - *under Dr. Vinay Ribeiro*

July-Mar. 2012-13 | *Robocon*

Designed and manufactured an autonomous and a manual robot, along with the team, for ROBOCON 2013, a national level robotics competition. Implemented a novel method that uses high precision optical mice for position feedback and navigation.

Computer Skills

Programming Languages:	Java, Python, C++, HTML, SQL, MATLAB, Processing, javascript, C#
Platforms:	Windows, Linux, Android, Arduino, Raspberry Pi Windows Mobile
Frameworks:	extJS, Simulink, Android SDK, NDK, KNIME

Interests and Activities

Travelling, Music, Chess, Cricket, Technology, Logical Argumentation