



Krishna Savant Syreddy
Electrical Engineering
Indian Institute of Technology, Bombay

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UG Fourth Year(B.Tech)
Male
DOB: 19-06-1993

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	8.08
Intermediate/+2	BIE, AP	SR Junior College	2010	90.50
Matriculation	CBSE	Warangal Public School	2008	93.00

Major Projects

- **Analyzing Point Clouds - Bridge Inspection Project** (*Dr. Sebastian Scherer, May 2013 to July 2013*)
(*Visiting Summer Scholar at Field Robotics Center, Robotics Institute, Carnegie Mellon University*)
 - Implemented algorithms to build a 3D model of bridge from laser scan data obtained over the flight of an Unmanned Aerial Vehicle (UAV)
 - Developed techniques to analyze coverage of bridge from different viewpoints
 - Presented poster at UG Research Symposium 2013
- **Autonomous Underwater Vehicle Project (AUV-IITB)** (*Prof. H. Arya, Prof. L. Vachhani*)
Designing and developing an AUV that localizes itself and performs realistic missions based on feedback from visual, inertial, acoustic and pressure sensors using thrusters. [auv-iitb.org]
16th AUVSI Robosub 2013, San Deigo, CA (*September 2012 to May 2013*)
 - Worked on navigation system : planning, localization and accurate maneuvering
 - Developed algorithms for fusing and filtering data from various sensors and control vehicle.
 - Qualified into semi-finals and placed 10th among 31 teams from around the world**17th AUVSI Robosub 2014, San Deigo, CA** (*August 2013 to Present*)
 - Leading 5-member software subdivision of the team for the competition.
 - Working on control systems, localization and testing framework of the vehicle
- **Google Summer of Code Project** (*May 2012 to August 2012*)
 - Worked with the organisation 'GNU Project' on the project 'Gnucap' (GNU Circuit Analysis Package) under the mentorship of Albert Davis. [http://gnucap.org]
 - Worked on a gnucap language plugin for schematic files
 - Implemented a schematic parser which provides interchange of data between simulatable Verilog-AMS netlist and gEDA/gschem schematic format.
- **Traffic Analysis Project** (*Guided by Prof. D. Manjunath, August 2013 to Present*)
 - Working in collaboration with Microsoft on data analysis of GPS and accelerometer data
 - Developing Machine Learning approaches to estimate traffic and predict road conditions

Key Academic Projects

- **epsilon-to-verilog: An Educational Hardware Compiler** (*Guided by Prof. S. Patkar, Sep-Nov, 2012*)
 - epsilon-to-verilog synthesizes programs written in a new custom minimalistic high level language epsilon to hardware description languages
 - The tool parses the cfg (control flow graph) generated by epsilon and does scheduling and allocation to generate hardware description in verilog.

- **Technology Mapping - VLSI CAD** *(Guided by Prof. S.Patkar, EE677 - Autumn 2012)*
 - Modeling the problem of technology mapping as a tree covering problem using pattern trees of the library gates.
 - Implementing using python graph-tool library
- **Traveling Message Display** *(Guided by Prof. M.B.Patil and J.John, EE214- Spring 2012)*
 - Worked in a team of 3 members
 - Display a scrolling message taken using keypad on an LED Array
 - Used an FPGA board: DE0 NANO and programmed using Verilog-HDL
 - My work involved writing verilog modules for taking input from the keypad and processing
- **Simulation of Micromouse** *(Guided by Prof. Deepak B. Phatak, CS101 - Autumn 2010)*
 - Led the team of 12 members with 3 subteams of 4 members each
 - Designed $n \times n$ mazes, solved them for the shortest path using Bellman-ford algorithm in C++ and simulated the solution using EzWindows GUI.
 - My work involved programming the display over GUI and interlinking the different parts

Scholastic Achievements

- **All India Rank 61** in IIT-JEE (Joint Entrance Examination) - 2010 of 0.455 million students
- **All India Rank 3** in NEST (National Entrance Screening Test)-2010 of 18000 students
- Qualified to appear for the Indian National Chemistry Olympiad (**INChO**) -2010 based on performance in National Standard Examination in Chemistry(**NSEC**) (For **top 300** in NSEC) and has been awarded a book prize for **top 1%** in the nation .
- Qualified to appear for the Indian National Physics Olympiad (**INPhO**) -2010 based on performance in National Standard Examination in Chemistry(**NSEP**). (For **top 300** in NSEP)
- Awarded **Certificate of Merit** by Central Board of Secondary Education (**CBSE**) for being among **top 0.1 %** in 'Science' and 'Social Science' in All India Secondary School Examination - 2008.
- Secured **All India Rank 15** in 10th National Science Olympiad (NSO) - 2007 conducted by Science Olympiad Foundation(SOF).

Technical Skills

- **Programming Languages:** C++,Python, Java, Haskell **Operating Systems:** Linux, Windows
- **Tools:** Latex, Scilab, Mathematica, Photoshop **Web development:** HTML, CSS, JS, Django
- **EE tools:** ngspice, gnuicap, gEDA tools, Eagle, Verilog

Additional Courses taken / currently taking

Artificial Intelligence	<i>Foundations of Machine Learning</i>
<i>Functional Programming</i>	Foundations of VLSI CAD
<i>Games and Information</i>	Data Structures and Algorithms
<i>Advanced Computing for EE</i>	Discrete structures
Introduction to Quantum Mechanics	First Course in Optimization

Additional Data

- *Homepage* : www.ee.iitb.ac.in/student/~sksavant
- *Github* : www.github.com/sksavant