



CURRICULUM VITAE

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Date of Birth: 24th November 1994

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Educational Qualifications:

Year	Degree	Institute	Percentage/ GPA
2012 – present	B.E.(Hons.) in Electrical and Electronics Engineering	BITS Pilani Hyderabad Campus	8.13/10
2012	Class XII CBSE – AISCCE	Vikhe Patil Memorial School	93.2 %
2010	Class X SSC	St. Anne's High School	90.55%

Fields of Interest:

- Pervasive Computing
- Computer Vision
- Machine Learning
- Computer Architecture
- Analog and Digital VLSI Design
- Parallel computing
- Robotics

Professional Experience:

- Summer Internship with **Pupil Labs** in Berlin ,Germany
- **LVP-MITRA Fellowship** - Awarded by MIT Media Labs and LV Prasad Eye Institute
- Winter Internship at *Srujana Innovation Center*- MIT Media Labs (December 2014-January 2015)
- Summer Internship at Renu Electronics Pvt. Ltd.,Pune, Maharashtra,India
- Participated in conference conducted by IEEE Hyderabad section on '**Advances in Image Processing and Applications**'
- Conducted workshop on 'Basic Image Processing' through Automation and Robotics Club(ARC)

Technical Skills:

- **Programming languages** – C, C++, Cython, Python, Java, Assembly language(x86)
- **Programming Tools**- MATLAB, OpenCV, Octave, R, LabView, Verilog.
- **Design Tools** – LTSpice, Hspice, OrCAD, AutoCAD, Solidworks
- **Microprocessors** - 8086, Arduino, Raspberry Pi
- **Operating system**- Linux, Windows

Academic Projects

- **Understanding Brain Connectivity using HARDI Diffusion Imaging in Amyotrophic Lateral Sclerosis(ALS)** : This study uses Higher Angular Resolution Diffusion Imaging (HARDI) to identify the accuracy of fiber tracts that can be reconstructed while adopting the clinical Diffusion Imaging.

- **Pupil:** Contributed to open source eye tracking platform in collaboration with Pupil Labs in Berlin. Work involved speeding up the algorithm using Cython language.
- **Gesture controlled musical jam:** Based on the gesture recognition from accelerometer sensors, generated chords of a musical instrument. Later used networking to connect such gestures and create a musical jam.
- **Pupil Tracker:** A working prototype of a device that could track pupil and calculate the reaction of the eye to certain stimulus.
- **Anterior Segment Imaging:** Member of team implemented a low-cost, wearable solid-state device with no moving optical parts, used to create a full 3D reconstruction of the anterior segment of the eye.
- **Gaze Tracker:** Face and eyes Detection using Viola-Jones face detection method and then approximating the eye location
- **Mapping using images captured by Tailless Fixed Wing Aircraft (Flying Wing):** An autonomous Unmanned Aerial Vehicle is built with thermographic cameras to detect humans during natural and manmade disasters.
- **Modeling digital circuits using Carbon Nanotube Field Effect Transistors(CNTFET):** CNTFET based multi valued logic half adder circuit design and simulation using HSPICE
- **Hand written digit recognition:** Recognition of digits from a given dataset using neural network

Awards / Honors / Achievements

- Participated in MIT Media Labs Design Innovation workshop and MIT Media Labs ReDx workshop. The prototypes were appreciated by the education minister of state.
- Qualified for Intel India embedded challenge 2014 Phase 2
- Awarded 'The meritorious student' for securing 1st position for mathematics and science in high school.
- Awarded a merit scholarship. This scholarship is given to top 1% of the best academic performers in state region.

Extracurricular Activities:

- Member of Quiz Club. Won the Times NIE Quiz in 2009.
- Member of Dramatic Club.
- Member of the Editorial Board of PHoEnix, a technical association of students of Electrical Engineering.

Reference:

Dr. Venkateswaran Rajagopalan

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