

SARAGADAM R V VISHWANATH
INDIAN INSTITUTE OF TECHNOLOGY MADRAS

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EDUCATION

Program	Institution	%/CGPA	Year of completion
B.Tech (Hons.) in Electrical Engineering with minor in operations research	Indian Institute of Technology Madras	9.33/10 ¹	2014
XII	Narayana Junior College, Hyderabad	98.4	2010
X	Chinmaya Vidyalaya, Hyderabad	92.0	2008

PROJECTS

Accessible Reading material May 2011 - December 2012

- Developed a low cost semi autonomous assistive device for tactiling simple images in pre-literacy and early literacy books for visually impaired children under the guidance of *Dr. Anil Prabhakar, Dr. Sujatha Sreenivasan and Dr. Nitin Chandrachoodan*.
- Project was funded by the Center for Industrial Consultancy and Sponsored Research, IIT Madras under the Innovative Students Project.
- Won third prize in IEEE AIYEHUM 2012, held at Bangalore, Karnataka.
- Patent pending. (*Patent Application No. 4091/CHE/ 2011TactographDate of Entry 28th November 2011 in the names of Indian Institute of Technology- Madras and Chetana Charitable Trust*).

Image segmentation using graph partitioning August - November 2012

- Worked on segmenting objects in images using random walk models and community detection as a part of *Introduction to social networks* course under the guidance of *Dr. Andrew Thangaraj and Dr. Krishna Jagannathan*.
- Code hosted at github.com/vishwa91/grimp.

Analyzing motion blur (B.Tech project) August 2013 - Now

- Guide: *Dr. A. N. Rajagopalan*, IIT Madras
- Working on deblurring images using motion sensors on a mobile platform and estimating depth from one blurred and one non-blurred image

Detecting features in glacial ice shelf images September 2013 - Now

- Working on detecting features corresponding to crevices in glacial ice shelf images of the Antarctic circle in collaboration with Vishnu Nandan(pursuing PhD in remote sensing) from AWI, Germany.

INTERNSHIP

Sasken Communication Technologies, Chennai, India May - July 2012

- Ported Boot 2 Gecko, Mozilla's web based mobile operating system to Huawei U8150.
- Compiled Gecko render engine and Linux kernel to ARM platform.

Maschinenfabrik Reinhausen GmbH, Regensburg, Germany May - July 2013

- Wrote XML validation script Bachmann platform.
- Ported tap changing monitoring system to Bachmann.
- Created emulation module for voltages and temperatures for software modules.
- Created automation system for documentation of software modules.

SCHOLASTIC ACHIEVEMENTS

- Secured 155th rank in IIT Joint Entrance Examination 2010 among 4,700,000 students.
- Recipient of the *Shri V Rajagopalan Memorial award* for outstanding performance in 3rd and 4th semesters in electrical engineering.
- Recipient of the *M Sankaraih and M Saradah scholarship* for outstanding performance in second year.
- Recipient of the CBSE merit scholarship for professional studies 2010 - 2014.
- Qualified for the DAAD WISE scholarship 2013 for internship at TU Bremen.
- Qualified for the S N Bose scholars program 2013 for internship at University of Wisconsin Madison.
- Selected for the *Kishore Vaigyanik Prothsaahan Yojana*(KVPY) scholars program 2010 for higher studies in basic sciences, awarded by Department of Science and Techonlogy, Government of India.
- Qualified for first round of the Physics and Chemistry Olympiads 2010.
- Presented a poster on *Controlling a 2 degrees of freedom pantograph plotter* in NaCoMM 2011 held at IIT Madras.

SKILLS

- **Computer languages:** C, C++, Python, Matlab, VHDL, Verilog, Assembly(8051, ARM), CUDA, PLC ladder logic
- **Computer tools and platforms:** AutoCAD, Microsoft Office, Adobe Flash, Autodesk 3ds Max, Xilinx IDE, Keil μ Vision, Modelsim, LT-SPIICE, Magic(VLSI), Spice opus, Bachmann PLC platform, L^AT_EX
- **Operating systems:** Microsoft Windows, Linux(Debian, Red hat, Arch)

RELEVANT COURSES AND LABS

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|--|---|
| - Networks and systems | - Computer Aided Designing for electrical engineering |
| - Analog and digital signal processing | - Digital circuits laboratory |
| - Introduction to communication networks | - Analog circuits laboratory |
| - Introduction to data structures and algorithms | - Digital communication ² |
| - Communication systems | - Communication networks ² |
| - Complex variables and transform techniques | - Speech signal processing ² |
| - Probability, statistics and stochastic processes | |

CO-CURRICULAR AND EXTRA-CURRICULAR ACTIVITIES

- Blogging³
 - Wrote articles on image processing in python and scipy, 3D animation, embedded systems and personal thoughts.
- Fine arts⁴
 - Participated actively in inter hostel fine arts competitions. Won fourth prize in inter hostel painting competition.
 - Sketched as a part of the team which won first prize in inter hostel creative writing.
 - Won 3rd prize in the Horlicks Whizz kids poster making competition 2007.
- Computer animation⁴
 - Worked on polygon and spline modeling in Autodesk 3ds max.
 - Worked on robotics event videos for Shaastra⁵ 2011.

POSITIONS OF RESPONSIBILITY

- Coordinator for design, Shaastra⁵ 2011 and Saarang⁶ 2012
- Hostel ambassador for Sustainability Network 2011
- Coordinator for Electronics workshop, Shaastra⁵ 2013
- Advisory committee member for National Service Scheme, IIT Madras from 2012 to 2014

²Courses in the current semester

³cyroforge.wordpress.com

⁴vishwa91.github.io/animation

⁵Annual technical festival of IIT Madras

⁶Annual cultural festival of IIT Madras