Sai Srivatsa R

12EE10059

B306, LLR Hall
IIT Kharagpur
India
✆ +91 8670734939
✉ sai.srivatsa.r@iitkgp.ac.in
☌ saisrivatsan.github.io

Education

Undergraduate Studies	**Indian Institute of Technology**, *Kharagpur*, 2012 – Present.
	○ B.Tech (Hons) in Electrical Engineering, Minor in Computer Science and Engineering
	○ Cumulative Grade Point Average **(CGPA) : 9.09**
	○ Due to my excellent performance in the first year, I was awarded a department change to Electrical Engineering.
Higher Secondary Education	**SBOA School and Junior College**, *Chennai*, 2010 – 2012.
	○ Central Board of Secondary Education
	○ **Aggregate : 95.6 %**
Secondary Education	**Kendriya Vidyalaya No 2**, *Kalpakkam*, 2000 – 2010.
	○ Central Board of Secondary Education
	○ **CGPA : 9.8**

Internships and Research Experience

Salient Region Detection via Objectness Measure

Video Analytics Lab, Indian Institute of Science,
Bangalore, May 2014 – June 2014.

- ○ Worked on algorithms to pick out Salient regions in an Image using Objectness proposals and contrast prior.
- ○ Evaluated performance of the proposed approach on two extensively used databases. Results obtained performed better than existing state of the art methods.
- ○ Research paper submitted to ICASSP 2015.

Comparative Analysis of Signal Processing Algorithms for Bearing Fault Diagnosis

Real Time Systems Division, *Indira Gandhi Centre for Atomic Research*,
Kalpakkam, Dec 2013.

- ○ Analysed the cause of bearing faults and its effect on Vibration data collected using accelerometer
- ○ Worked on various signal processing algorithms used for bearing fault diagnosis and implemented them in MATLAB
- ○ Analysed the signal obtained from CWRU data center using FFT, envelope detection , empirical mode decomposition and Morphological operations and compared their performance.

Selected Development Projects

- ○ **AI Game Agent** : Implementing Intelligent Agents to play games using minimax search and alpha-beta pruning (ongoing).
- ○ **Image Segmentation** : Using Prims algorithm, a minimum spanning tree was contructed. Costliest edges were removed to obtain disjoint regions/segments.
- ○ **Ludo** : Implemented the well known Ludo game with GUI using Qt
- ○ **K-Map** : Developed a C++ program to simplify a given Boolean expression using a Karnaugh Map

Awards and Honours

- **INSPIRE fellowship** for higher education. (Program by govt. of India)
- **99 Percentile** (Among 500 000 candidates) in **Joint Entrance Examination** 2012 and secured admission to IIT Kharagpur.
- **99.93 Percentile** in All India Engineering Entrance Examination (Among 1.2 million candidates)
- **Kishore Vaigyanik Protsahan Yojna (KVPY) fellowship** (Top 200 Among 60 000 candidates)
- **National Talent Search Scholarship (NTSE)** (Top 1000)

Other Scholastics Achievements

2012 National	**Certificate of Merit**, Indian National Mathematics Olympiad. (Awarded to **top 75)**
2012 National	Qualified for Indian National Chemistry Olympiad. **(Top 1 %)**
2012 Regional	**Certificate of Merit**, National standard examinations in Physics **(Top 1 %)**
2012 National	Secured **All India Rank 7** in National Cyber Olympiad
2012 National	Secured **All India Rank 30** in KVS Junior maths olympiad
2010 National	Secured **All India Rank 292** in IMO conduceted by Science Olympiad foundation
2008 National	Secured **All India Rank 45** in National Science Olympiad

Technical Skills

Programming Languages	C,C++
Technical Computing	MATLAB, Octave
Software Tools	LaTeX, Qt, Solidworks, Visual Studio
Platforms	Microsoft Windows, Linux

Relevant Coursework

- Programming and Data Strcutures^{T+L}
- Algorithms^{T+L}
- Artificial Intelligence
- Analog Electronics^{T+L}
- Digital Electronics^{T+L}
- Computer Architecture and Operating Systems*
- Embedded Systems*
- Machine Learning**
- Signals and Networks^{T+L}
- Electric Machines^{T+L}
- Power Electronics^{T+L}
- Control Systems Engineering^{T+L}
- Mathematics I & II
- Power Systems *
- Probability and stochastic processes*
- Introduction to VLSI CAD**

T+L denotes that the course had a laboratory component as well.
* denotes courses to be completed before the internship.
** denotes courses completed online

Extra-curricular Activities

- Passed two grades with merit in Western solo Piano and Keyboard(Trinity College of London)
- Part of Inter-hall Maths Olympiad team, Opensoft team and Quizing team.
- Member of National Sports Organisation from 2012–2014