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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 ICVGIP 2014.

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

- **Image Segmentation** : Using Prims algorithm, a minimum spanning tree was constructed. 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 conducted 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 Structures^{T+L}
- Algorithms^{T+L}
- Artificial Intelligence
- Analog Electronics^{T+L}
- Digital Electronics^{T+L}
- Signals and Networks^{T+L}
- Electric Machines^{T+L}
- Power Electronics^{T+L}
- Control Systems Engineering^{T+L}
- Mathematics I & II

T+L denotes that the course had a laboratory component as well

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