

# Sarthak Parui

## Indian Institute of Technology Madras



Room 331, Pampa Hostel, IIT Madras

+91 8148889434

tosarthak@gmail.com

### EDUCATION

Program	Institution	%/CGPA	Year of completion
MS in CSE	Indian Institute of Technology Madras, Chennai	9.33	2012-Present
B Tech in CSE	Institute of Engineering & Management, Kolkata	8.84	2010
XII	Uttarpara Govt. High School (W.B.C.H.S.E)	90.8	2006
X	Uttarpara Govt. High School (W.B.B.S.E)	90	2004

### SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank 1 in Joint Entrance Screening Test (JEST), 2012

### SKILLS

- Languages: C, C++, Core Java, Python, Matlab
- Mobile/Web/DB Technologies: Android, Web Services, PHP, JavaScript, MySql
- Platform/Frameworks: Linux, OpenCV, WebGL

### PROJECTS

- Large Scale Sketch-based Image Retrieval (February 2013 - ongoing)
  - Designed and developed a real time efficient solution for image retrieval from a database of million images which significantly outperforms existing state-of-the-art methods
- Intelligent Adaptive Video Monitoring and Recording System (March 2014 - ongoing)
  - Lead the Background Subtraction module for detecting moving foreground objects
- Mobile app for Gaze Detection and Tracking (April 2013-May 2013)
  - Developed an application that detects users' gaze and intelligently delivers targeted articles/products/ads. Source: <https://github.com/sarthakparui/eyeintention>
  - Won Judges' Choice Award in Yahoo HackU! 2013 and Ebay/Paypal Hackathon 2014 held at IIT Madras
- Augmented Reality application for Kinect (April 2014 – July 2014)
  - Developed a Virtual Dressing application tackling various computer vision challenges, viz. scale and translation invariance, occlusion etc.
  - Nominated as top 5 in Microsoft Hackathon-IIT Madras 2014
- WebGL and HTML5 based Game (June 2011 – July 2011)
  - Techniques/Frameworks used: WebGL, HTML5, C3DL. Source: <https://github.com/sarthakparui/typomania>
- Project on Operating System (August 2009 – April 2010)
  - Developed both 16-bit real and 32-bit protected mode small scale CUI based Operating System. Source: <https://github.com/sarthakparui/opos>
- Semi-supervised Learning for Saliency Detection in Images (August 2012 – November 2012)
  - Proposed a method that detects the most Salient Foreground Object(s) in various challenging scenarios
- Website Designing (September 2009 – August 2010)
  - Designed a part of the website for Institute of Engineering & Management, Kolkata (<http://iem.edu.in/>)

### PUBLICATIONS

- "Similarity-invariant Sketch-based Image Retrieval in Large Databases", European Conference on Computer Vision, 2014 ([http://link.springer.com/chapter/10.1007%2F978-3-319-10599-4\\_26](http://link.springer.com/chapter/10.1007%2F978-3-319-10599-4_26))
- "A Method for Public Key Method of Steganography", International Journal of Computer Applications, September, 2010 (<http://www.ijcaonline.org/archives/volume6/number3/1063-1389>)

## CO-CURRICULAR ACTIVITIES

---

- Ranked 18<sup>th</sup> in the South-Asia region qualifier of ACM International Collegiate Programming Contest, Asia Amritapuri site in 2009
- Ranked 2<sup>nd</sup> in Reverse Coding competition held at Shaastra 2013, annual technical fest of IIT Madras
- Ranked 1<sup>st</sup> in the Programming Contest 2009 at Infosys Aspiration 2020 among all teams from West Bengal
- Ranked 2<sup>nd</sup> in coding competition held at Aarohan 2009 and 2010, annual technical fest of NIT Durgapur
- Participated and won many other programming competitions
- Received outstanding Teaching Assistant award for Computational Engineering Course, 2013

## PROFESSIONAL EXPERIENCE

---

- Worked as an Assistant System Engineer at Tata Consultancy Services, Hyderabad (September 2010 – June 2012)
  - Principal responsibilities include problem analysis and development
  - Worked on designing Server Side Architecture and data-flow and developing RESTful SOA for Maintenance Ticketing System – a product of TCS for workflow management on mobile platform
  - Worked on Blackberry, Android and HTML5-based mobile app development

## COURSE WORK

---

- |  |                                       |
|--|---------------------------------------|
| • Advanced Data Structure and Algorithms | • Kernel Methods for Pattern Analysis |
| • Pattern Recognition                    | • Digital Video Processing            |
| • Computer Vision                        |                                       |

## EXTRA-CURRICULAR ACTIVITIES

---

- 1<sup>st</sup> in intra-college chess tournament in 2007 at IEM, Kolkata
- 2<sup>nd</sup> in NIIT Edgeineers “Parallel Chess with Viswanathan Anand” competition in 2007
- Chief coordinator of an inter-college coding competition organized in 2009 at IEM, Kolkata

## OBJECTIVE

---

I have a strong inclination towards designing optimized, scalable solutions using mathematical theory and algorithmic approaches. I am passionate about new technologies and love to implement the acquired knowledge efficiently and robustly. I am looking forward to enhance my knowledge of effective and efficient scalable product development.