# Sarthak Parui

## Indian Institute of Technology Madras

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## **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, J2EE, 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)

- o 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
- Mobile app for Gaze Detection and Tracking

(April 2013-May 2013)

- o 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)

- o Developed a Virtual Dressing application tackling various computer vision challenges, viz. scale and translation invariance, occlusion etc.
- o Nominated as top 5 in Microsoft Hackathon-IIT Madras 2014
- WebGL and HTML5 based Game

(June 2011 – July 2011)

- o Techniques/Frameworks used: WebGL, HTML5, C3DL. Source: <a href="https://github.com/sarthakparui/typomania">https://github.com/sarthakparui/typomania</a>
- Project on Public Key Method of Steganography

(May 2010 – August 2010)

- o Designed a very fast and secure way of Steganography with the notion of public-private key-pair
- Project on Operating System

(August 2009 – April 2010)

- o Developed both 16-bit real and 32-bit protected mode small scale CUI based Operating System
- Semi-supervised Learning for Saliency Detection in Images

(August 2012 – November 2012)

- o Proposed a method that detects the most Salient Foreground Object(s) in various challenging scenarios
- Website Designing

(September 2009 – August 2010)

O 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
- "A Method for Public Key Method of Steganography", International Journal of Computer Applications, September, 2010. (<a href="http://www.ijcaonline.org/archives/volume6/number3/1063-1389">http://www.ijcaonline.org/archives/volume6/number3/1063-1389</a>)

#### 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 Assistant System Engineer at Tata Consultancy Services, Hyderabad (September 2010 June 2012)
  - o Principal responsibilities include Problem Analysis and Development
  - Worked on Designing Server Side Architecture and Workflow and Developing RESTful SOA for Maintenance Ticketing System – A product of TCS for Mobile/Tab device based Workflow Management System
  - o Worked on Mobile Push, Android and HTML5-based Mobile App Development

#### **COURSE WORK**

- Advanced Data Structure and Algorithms
- Pattern Recognition
- Computer Vision
- Kernel Methods for Pattern Analysis

- Digital Video Processing
- Language Processor
- Formal Language and Automata Theory

#### 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.