# Ashish Manmode

ash.manmode@gmail.com | 7585 965862

## EDUCATION

### IIT KHARAGPUR
Dual Degree (M.tech+B.Tech)
M.Tech in Visual Information Processing and Embedded Systems
B.Tech in Electronics
Expected Apr 2017 | Kharagpur, India
Cum. GPA: 8.16/10

### NAVODAYA VIDYALAYA
Higher Secondary
Apr 2011 | Wardha, India
Score: 94.4%

## LINKS

Github:// **ashmanmode**
LinkedIn:// **ashmanmode**
Web:// **ashishmanmode.com**

## COURSEWORK

### GRADUATE
Parallel & Distributed Algorithms
(Practicum Included)
Advanced Graph Theory
Digital Image Processing
(Practicum Included)
Pattern Recognition & Image Understanding

### UNDERGRADUATE
Algorithms I and II
Speech & Natural Language Processing
Data Structure & Object Representation
Machine Intelligence & Expert Systems
(Practicum Included)
Probability & Stochastic Processes
Matrix Algebra

## SKILLS

### PROGRAMMING
Over 5000 lines:
C • C++ • Python
Over 1000 lines:
PHP • JavaScript • Matlab
Java • Python • Scala • LaTeX
Familiar:
MySQL • Google BigQuery
OpenCV • Unity

## EXPERIENCE

### IBM INDIA | Extreme Blue Intern
May 2016 – Jul 2016 | Banglore, India
- Built a client Server Model on Apache Spark which enables handling large sized chip designs on distributed platform, making it scalable horizontally
- Graph Processing functionalities like path between nodes using Google Pregel

### TRINITY COLLEGE DUBLIN | Visiting Research Student
Nov 2015 – Dec 2015 | Dublin, Ireland
- Constructed a virtual 3D model of the college with Depth Based Rendering
- Occlusion detection for real objects using Google Tango Project

### GRAY ROUTES INNOVATIVE DISTRIBUTIONS | Software Intern
May 2015 – Jul 2015 | Mumbai, India
- Implemented functionalities using google maps API and the direction service
- Google BigQuery was used for big data parallel query processing

## PROJECTS

### DEEP NEURAL NETWORK BASED SPEECH SYNTHESIS
Jul 2015 – Present | IIT Kharagpur
Developed a TTS Engine by mapping linguistic input features to acoustic output features on DNN. It gave better performance than conventional HMM TTS System

### PLAGIARISM DETECTION USING NLP TREE KERNEL
Jul 2015 – Nov 2015 | IIT Kharagpur
Trained SVM using subtree matching techniques on abstract syntax tree & KL Divergence in the language model generated using in-lined codes, gave 78% accuracy

### FACE RECOGNITION USING 2D-PCA
Jul 2015 – Nov 2015 | IIT Kharagpur
Analyzed 2D-PCA based feature extraction which gave 95.6% accuracy on face recognition and compared the computational efficiency of 2D-PCA over PCA

### IMPOSTER DETECTION USING KEY STROKE DYNAMICS
Jul 2015 – Nov 2015 | IIT Kharagpur
Determined the multivariate Gaussian distribution by using the hold times and the latency periods of the keystrokes. Achieved accuracy of 75% in user detection

### CONSTRUCTION OF 3D MODELS FROM PANORAMIC MOSAICS
May 2015 – Jul 2014 | IIT Kharagpur
Designed a interactive tool for 3D reconstruction from panoramic mosaics. The problem was solved as a least square problem for hard and soft constraints

## AWARDS

| | | |
|---|---|---|
| 2015 | Rank 108th | ACM-ICPC Asia, Chennai |
| 2011 | Best Exhibit | 98th Indian Science Congress, Chennai |
| 2011 | 1st | Jawaharlal Nehru National Science Exhibition, Jaipur |
| 2011 | 1st | CBSE XII Board, Pune Region |
| 2010 | Top 400 | Indian National Mathematics Olympiad |
| 2008 | Top 10 | XL National Mathematics Talent Competition |

## EXTRA CURRICULAR

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|---|---|---|
| 2015 | Gold | Inter-Hall Sketching Competition |
| 2013 | Subhead | National Students Space Challenge'13 |