

Ashish Manmode

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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 | Bangalore, India

- Built a client Server Model on Apache Spark which enables handling large sized chip designs on distributed computing 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 an 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

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