Abhineet Jain

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EDUCATION

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, HYDERABAD
B.Tech. (Hons.) in Computer Science and Engineering
Expected May 2017
9.57/10 (6 semesters)

AISSCE, CBSE
Senior Secondary
May 2013
96.4%

AISSE, CBSE
Secondary
May 2011
10/10

COURSEWORK

Machine Learning
Computer Vision
Optimization Methods
Digital Logic and Processors
Data Structures, Algorithms
Computer System Organization
Operating Systems
Structured System Analysis and Design
Artificial Intelligence
Computer Graphics
Formal Methods
Mobile Robotics
Statistical Methods in AI
Complexity and Advanced Algorithms
Advanced Computer Networks

TECHNICAL SKILLS

Programming Languages
C • C++ (STL) • Python • JS

Libraries
TensorFlow • Caffe • Theano
OpenCV • Numpy • Scikit

Other tools/languages/libraries
Django • Ruby on Rails • Web2py
MySQL • HTML • CSS • ROS
Bash • Git • OpenGL
MATLAB • jQuery • Bootstrap

POSITIONS

Speaker, Students' Parliament, IIITH
Coordinator, Threads 2016, IIITH
Member, Students' Parliament, IIITH
Member, Student Induction Body, IIITH
Cultural Rep., Agni House, IIITH

EXPERIENCE

VISITING SCHOLAR | University of Southern California
May 2016 – Jul 2016
Used TensorFlow to learn CNN and Transfer Learning technique, worked with humanoid, PR2.

UNDERGRADUATE RESEARCHER | Robotics Research, IIITH
May 2015 – Present
- Part of driverless car team, worked on camera calibration, motion segmentation, B-Spline curve fitting, obstacle detection
- 3D reconstruction of outdoor environment, track moving objects in frames dynamically, semantic segmentation, InfiTAM (C++)
- Trained CNN for Keypoint detection in PASCAL dataset.

TEACHING ASSISTANT | IIIT Hyderabad
Aug 2015 - Present
Digital Logic & Processors, Computer Systems Organization, Comp. Programming

CONTEST PORTAL DEVELOPER | Felicity Threads 2015
Jan 2015 – Feb 2015
Generic API for portals using Django, host contests for - programming, quizzes, machine learning etc., experience in hosting international level contests like Gordian Knot, CodeCraft.

ACHIEVEMENTS

Dean's Merit List (top 5% students)	Awarded for all semesters
Google APAC 2016 (Round E)	Rank: 191
ACM ICPC Asia-Kharagpur 2016-17	Online: 9th (out of 400 teams)
ACM ICPC Asia-Amritapuri 2016-17	Online: 32nd (out of 1800 teams)
ACM ICPC Asia-Amritapuri 2015-16	Online: 64th, Onsite: 51st (out of 1500 teams)
ACM ICPC Asia-Chennai 2015-16	Online: 40th, Onsite: 62nd (out of 800 teams)

PROJECTS

ANALYSIS OF DEEP LEARNING NEURAL NETWORKS
Oct 2016 | Course: Machine Learning
Used Keras/Theano to analyse trends of loss, and accuracy on basic CNN for MNIST and CIFAR-10, with varying parameters like batch size, learning rate, no. of layers etc.

IMAGE MOSAICING AND METRIC RECTIFICATION
Feb 2016 – Mar 2016 | Course: Computer Vision
Used homography to stitch a bunch of overlapping images, correct perspective distortion, and implement graphic overlay.

ANALYZING FACIAL FEATURES FOR RECOMMENDATION
Sep 2015 – Present | Course: Statistical Methods in AI
Learn user preferences for various facial images, suggest faces based on learning, use of Dense-SIFT, PCA, HOG, GIST algorithms and SVM classifier (team size: 2)

ULTIMATE TIC-TAC-TOE BOT
Mar 2015 | Course: Artificial Intelligence
Implemented bot for playing UT3, used Alpha-Beta pruning, hashing, IDFS
Finished 3rd among 100 teams (team size: 2)

ROBOT CENTRAL MANAGEMENT SERVER
Aug - Nov 2014 | Course: Structured System Analysis and Design
Using Django, portal to control robots in a workspace, commands executed using ROS at the backend, basic path planning algorithm (team size: 4)