Dheeraj Reddy Pailla

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EDUCATION

International Institute of Information Technology, Hyderabad (IIIT-H)

Aug 2016 - Present

Bachelor of Technology (Honors) in Computer Science and Engineering

Hyderabad, India

Honors

Research List 2018-19

In recognition of research performance in the academic year

IIIT Hyderabad

Dean's Merit List

2018-19

In recognition of academic performance - top 20% of the class

IIIT Hyderabad

RESEARCH EXPERIENCE

Siemens May 2019 - Jul 2019

Research Intern, Perception Lab

Bangalore, India

• Worked on the Intelligent Traffic Management project using CenterNet Hourglass104.

• Used the same model to detect objects in aerial imagery and participated in the VisDrone challenge at ICCV 2019.

Precog
Undergraduate Researcher, IIIT Delhi

Aug 2018 - Present

New Delhi, India

• Working with **Prof Ponnurangam Kumaraguru** ("PK") on the project "Driving the last mile"

Centre for Visual Information Technology

May 2018 - Present

Undergraduate Researcher, IIIT-H

Hyderabad, India

• Working under **Prof C.V. Jawahar** on the Autonomous Robot and Automated Football Analysis projects

Publications

Driving the Last Mile — International Conference on Web & Social Media 2020

- Characterizing and understanding distracted driving posts on Snapchat
- Collected 6.4 million Snaps from 173 cities around the world

VisDrone-DET2019 — International Conference on Computer Vision Workshop 2019

- Participated in the Vision Meets Drone Object Detection in Images challenge
- Finished 1st in the AR500 metric and 7th overall

VisDrone-VID2019 — International Conference on Computer Vision Workshop 2019

- Participated in the Vision Meets Drone Object Detection in Videos challenge
- Finished 5th overall

Teaching Assistant

Structured Systems Analysis & Design

Monsoon 2018

IIIT-H's core undergraduate systems development course. Strength > 150

Privacy & Security in Online Social Media

Spring 2019

Course offered on India's largest online learning platform NPTEL. Strength > 5000

Big Data & Policing

Spring 2019

 $Elective\ course\ for\ undergraduate\ and\ postgraduate\ students\ on\ policing\ using\ technology.\ Strength>60$

Real Analysis \mathbb{R}^{n}

IIIT-H's introductory undergraduate calculus course. Strength > 250

Monsoon 2019

SKILLS

Machine Learning: PyTorch • ONNX • TensorRT • OpenVINO

Web Dev: React • Angular 4 • Flask • Gin

Design: Photoshop • Illustrator

Other: $C \bullet C++ \bullet Python \bullet Go \bullet Matlab$

Selected Coursework

Artificial Intelligence: Statistical Methods in AI • Artificial Intelligence

Computer Vision: Computer Graphics • Digital Image Processing • Computer Vision Social Computing: Privacy Security in Online Social Media • Big Data & Policing

Systems: Operating Systems • Computer System Organization • Advanced Computer Networks

OTHER EXPERIENCE

Commercial Bank of Qatar

June 2017 - Jul 2017

Software Development Engineering Intern

Doha, Qatar

• Built object detection module as part of the Intelligent Traffic Management project using CenterNet Hourglass104

TRI3D Aug 2017 - Nov 2017

Software Development Engineering Intern

Hyderabad, India

• Worked on the Intelligent Traffic Management project using CenterNet Hourglass104.

PROJECTS

Intelligent Traffic Management

• Worked with CenterNet to build an object detection module for traffic vehicles in India

Automated Football Analysis

• Automated analysis of broadcast soccer matches of the FIFA World Cup 2018. Collected data for all 64 matches and successfully built a pipeline to automatically analyze and detect goals, fouls, corners, and substitutions

Autonomous Robot

Worked with YOLOv3 to build a person detection and recognition module

Hate Speech Analysis

• Detected and analyzed hate speech on alt-right website Gab during the Pittsburgh synagogue shooting

Bird-v-Drone

• Built a binary classifier to distinguish between birds and drones using Bag of Visual Words

Bash

• Implemented a clone of the Bash terminal in C

Ultimate Tic-Tac-Toe Bot

• Developed the heuristic of a bot that plays Ultimate Tic-Tac-Toe on a 4x4x4x4 grid

Legend of Zelda

• Developed a 3D replica of the Legend of Zelda game in C++ using OpenGL

Tunnel Rush

• Developed a 3D replica of the Tunnel Rush game in Javascript using WebGL

Miscellaneous

Students' Parliament: Member from 2016-2018

Clubs Council: Secretary in 2018, Undersecretary in 2017

CMAC: Student liaison to the Campus Management & Advisory Council

TEDx Hyderabad: Volunteer in 2016

IIIT-H MUN: Member of Organizing Committee

CCC: Volunteer for the Campus Canine-management Council