# AMEGH BHAVSAR

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### **EDUCATION**

Indian Institute of Technology Kharagpur

July 2015 - Present

 $B.\,Tech\,+\,M.\,Tech\,$  in  $\,Biotechnology\,$  and  $\,Biochemical\,$   $\,Engineering\,$ 

Kharagpur, India

CGPA: 7.41/10

Vidyasar School Grad. May 2015

All India Senior School Certificate Examination Indore, India

Percentage: 88.0%

INTERNSHIPS AND PROJECTS

Pixean | Machine Learning Intern May 2018 - June 2018

OKSBIRD Online Services Private Limited Navi Mumbai, India

· Designed recommendation engine for content projection and engagement based on user interest and activity

· Designed image quality filters to skim out the irrelevant uploads and tested the algorithm on 600 images

· Used Google Cloud Vision API to implement auto-tagging and genre suggestion for images

· Developed a tag-based search algorithm for images and blogs using Natural Language Toolkit and ElasticSearch

Ideaforge Technologies | Computer Vision Intern

March 2016 - Present

· Worked on Deep Convolutional Neural Networks based image and video super-resolution using TensorFlow

Swarm Robotics IIT Kharagpur | Software Team Member

March 2016 - Present

Guide: Prof. Somesh Kumar, Prof. Pallab Dasgupta

Kharagpur, India

Tested and optimized the Artificial Potential Field algorithm for path planning of mobile robots on a simulator

· Accomplished localization of mobile robots using AprilTags via image feed from an overhead camera in C++

Transcription Network Dynamics | B. Tech Project

July 2018 - Present

Guide: Prof. Riddhiman Dhar

Kharagpur, India

· Working on hierarchical clustering of the gene expression data to understand dynamics of gene regulatory networks

**3D Image Stitching** | Image Processing Term Project

October 2018

Guide: Prof. Partha Pratim Das

Kharaqpur, India

· Implemented panoramic stitching of 72 images by calculating affine transform using FLANN based matcher

## TECHNICAL SKILLS

Languages
Tools & Libraries
Proficient: C, C++, Python | Intermediate: MATLAB, JavaScript
OpenCV, TensorFlow, Git, ROS, Gazebo, ElasticSearch, MySQL

· 10018 & Libraries . Opene v, Tensor Flow, Git, 1003, Gazebo, Elastic Search, Mys Qi

· Hardware : Raspberry Pi, Arduino

#### RELEVANT COURSEWORK

 $\cdot \ \mathbf{Undergraduate} : \ \mathbf{Partial} \ \mathbf{Differential} \ \mathbf{Equations}, \ \mathbf{Probability} \ \mathbf{and} \ \mathbf{Statistics}, \ \mathbf{Programming} \ \mathbf{and} \ \mathbf{Data} \ \mathbf{Structures}, \\ \mathbf{Programming} \ \mathbf{Partial} \ \mathbf{Differential} \ \mathbf{Proposition} \ \mathbf{Proposi$ 

Computational Neuroscience, Image Processing, Data Analytics\*

· MOOC : Neural Networks and Deep Learning, Convolutional Neural Networks for Visual Recognition,

Machine Learning, Introduction to Computer Vision, Computational Motion Planning,

Introduction to Algorithms\*

\* indicates ongoing courses

## POSITIONS OF RESPONSIBILITY

Gopali Youth Welfare Society | Vice President

April 2018 - Present

(GYWS is a registered NGO run by students of IIT Kharagpur providing free of cost education to 220 underprivileged children)

- · Administered overall functioning of the organization as a part of its 13 member apex governing body
- · Handled a budget of INR 34,00,000 to run Jagriti Vidya Mandir, a primary English-medium school run by GYWS