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: 7.42/10

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**

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   *Kharagpur, India*
- Implemented panoramic stitching of 72 images by calculating **affine transform** using **FLANN** based matcher

Attendance Tracking | *Project Member*   December 2016
IEEE Image Processing Workshop   *Kharagpur, India*
- Built an application to determine attendance via image feed from a door-camera using **HaarCascades** in **OpenCV**

TECHNICAL SKILLS

- **Languages**   : **Proficient:** C, C++, Python | **Intermediate:** MATLAB, JavaScript
- **Tools & Libraries** : OpenCV, TensorFlow, Git, ROS, Gazebo, ElasticSearch, MySQL
- **Hardware**   : Raspberry Pi, Arduino

RELEVANT COURSEWORK

- **Undergraduate** : Partial Differential Equations, Probability and Statistics, Programming and Data Structures, Computational Neuroscience, Image Processing
- **MOOC**   : Machine Learning, Introduction to Computer Vision, Computational Motion Planning Introduction to Algorithms*, Neural Networks and Deep Learning*

* 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