# NAVANEETH SURESH

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#### **EDUCATION**

## Indian Institute of Technology, Kharagpur

Kharagpur, West Bengal, India

B.Tech + M.Tech in Ocean Engineering (Majors) and Computer Science and Engineering (Minors)

#### **PROJECTS**

## Monocular 3D Object Detection

Ongoing

- Advisor: Rishabh Madan
- Working on 3D object detection on monocular images using knowledge distillation techniques.
- Used Sparsely Embedded Convolutional Detection Network to train a ResNet which is trained and tested on KITTI dataset.

# ROS Apps deployment

- Investigated on deploying Robotic Operating System applications using containers.
- Used Docker for deployment.
- Study is documented at GitHub.

#### Where Is My Prof

- Scraped the schedule of the courses offered by various departments and mapped to the professors to generate the timetable of a professor from the ERP of IIT Kharagpur.
- Wrote the backend using Flask, BeautifulSoup, mechanize, etc in Python and frontend using HTML5 and CSS3 completely from scratch.
- Deployed as a web application on heroku and code is hosted at GitHub.

#### **EXPERIENCE**

# Google Summer of Code 2019

Remote

Student Developer

May 2019 - August 2019

## Completion Certificate

- Was selected as an intern in Google Summer of Code under Python Software Foundation and worked under the guidance of Pulkit Goyal.
- Developed a method to interactively restore uncommitted changes to the working directory and worked on adding a functionality to store/restore an unresolved merge-state in the Mercurial version control system. *Contributions to the repository*

#### Kharagpur Open Source Society

Executive Head

Kharagpur, West Bengal January 2017 - Present

- Organized Kharagpur Winter of Code, to promote open-source development with over 2000+ registrations, across more than 75 colleges.
- Curated the contents and taught in interactive Python and Git workshops.

• Conducted Ubuntu install fest and the Open Source summit 2018 with more than 700+ registrations.

#### TECHNICAL SKILLS

Languages C, C++, Python, Matlab/Octave, JavaScript, Bash, LATEX, HTML5, CSS3

Libraries Pytorch, Tensorflow, Keras, Numpy, Flask

Databases SQL, MongoDB

Version Control Git, Mercurial, GitHub Workflow

**Deployment** Docker, Heroku

#### CONFERENCES

Talk: Storing unresolved merge conflicts using Mercurial

Mercurial Sprint 5.2, New York

#### RELEVANT COURSES

- Machine Learning
- Convolutional Neural Networks for Visual Recognition\*
- Programming and Data Structures
- Design and Analysis of Algorithms
- Numerical Solution of Ordinary and Partial Differential Equations

#### **AWARDS**

# Gold in Interhall Opensoft Competition

Kharagpur, West Bengal

Link to the repository

- Worked on developing an app which intelligently parses different parts of a doctors prescription (written by hand) using multiple technologies such as OpenCV, Flask, NLP, REST API, bash scripting and Docker.
- Used Tesseract OCR for character recognition.
- Worked on implementing and enhancing spell correction using Norvig's algorithm on custom corpus of drug names.

## Gold in Open IIT Data Analytics Competition

Kharagpur, West Bengal

- Worked on developing a mathematical model based on reducing wastage and safety stock and relying on rather ordering when needed.
- Used Time Series Forecasting using Exponential Smoothing, Economic Order Quantity Model and Just in time inventory strategy policy.

# Singapore Technologies Scholarship in Engineering

Kharagpur, West Bengal

• Was shortlisted for the Singapore Technologies Scholarship in Engineering on the basis of academic and extra-curricular activities.

<sup>\*</sup> indicates online courses