

# Kaustav Ghosh

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**Manipal Institute of Technology**

B.Tech in Computer Science & Engineering 2018 - 2022



## INTERNSHIPS

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- **Microsoft Student Partners-Machine Learning Internship**

- Guided a team of 10 individuals to collaborate and accomplish a Regression task of price prediction of used cars in the machine learning pipeline through Exploratory Data Analysis, Feature Engineering and Model Building.

- **Qbotics Labs - Robot Operating System Internship**

- Constructed a Differential Drive with caster wheel from scratch using URDF and XACRO files and mounted the same with laser scanner, IMU and Velodyne Puck VLP-16 Lidar and simulated the same in Gazebo and Webots

- **United Nations TakenMind-Global Data Analytics Internship**

- Scripted a personal version of Numpy and Pandas Documentation
- Performed Exploratory Data Analysis techniques using Matplotlib and Seaborn
- Created several boxplots, countplots, heatmaps of several datasets

- **Ineuron Deep Learning with Computer Vision and Natural Language Processing Internship**

- Currently learning CNNs and RNNs

## ACADEMIC PROJECTS

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- **Finland Labs in association with NSS IIT Roorkee - Covid 19 Data Analysis, Time Series Forecasting and Web Scraping**

- Prepared a complete Data Analysis report on the World-wide COVID-19 attack statistics and used the Facebook's fbprophet Time-series Forecasting library to speculate the number of active corona victim cases in the upcoming days.

- **Food Labs Robotics Startup Interview - ROS Engineer Role**

- Designed, modelled, constructed and Assembled a plethora of sensors and Robots across multiple software platforms like freeCad, Blender, Gazebo and also fabricated a Defense Building from scratch using floor plan and Gazebo World Editor

- **Analysis of Selective Compliance Assembly Robot Arm and Modelling of T3R Robot**

- Computed DH parameters for the SCARA robot and used it to formulate the Forward and Inverse Kinematics of the robot arm. Also formulated Lagrange Euler Dynamics

## POSITIONS OF RESPONSIBILITY

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Local Committee Member of IOSD(International Organization of Software Developers)

## COURSES TAKEN

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**Coding Ninjas**- Completed C++ & Data Structures. Currently doing Algorithms & Competitive Programming Course.

**NPTEL**-Basic Electronics, Switching Circuits & Logic Design, Computer Organization & Architecture, OOP with Java

## TECHNICAL SECTION

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**Softwares Used:** Anaconda, AutoCAD, Matlab, Keil, Altera MaxPlus 2, VirtualBox, Vm Ware, Oracle SQL, VS Code & Sublime Text  
**Programming Languages:** Fluent in C/C++, Familiar with Java & Python, Verilog, L<sup>A</sup>T<sub>E</sub>X, Linux Shell Scripting, fair acquaintance with ARM assembly programming(NXP LPC 1768)

**Libraries & Frameworks:** C++-STL Java-JavaFX GUI Python-Numpy, Pandas, SciPy, Scikit-Learn, Matplotlib, Keras, Tensorflow

**Operating Systems Used:** Windows-XP, Vista, 7, 10 Linux-Ubuntu