Kaustav Ghosh

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Manipal Institute of Technology
B.Tech in Computer Science & Engineering 2018 - 2022
CGPA: 8.3

INTERNSHIPS

- **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 a 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**
  - Postponed due to Covid Situation

ACADEMIC PROJECTS

- **Compiler Frontend for subset of C-Language**
  *- Coded a **Lexical Analyser** that extracts tokens from a C source file and a **Symbol Table Generator** to store information of identifiers and functions*
  *- Coded a **Recursive Decent Parser** that semantically parses the grammar for subset of C-Language by analysing the tokens generated by a Lexical Analyser*
- **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

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

COURSES TAKEN

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

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,LaTeX,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