

Education

Indiana University, Bloomington

May 2021

Master of Science in Data Science

Course focus: Artificial intelligence, Machine learning, Data mining, Exploratory Data analysis, Visualization, Statistics, Advanced Database concepts

Vishwakarma Institute of Technology, Pune

June 2018

B.Tech Electronics engineering

Technical Skills

Programming Languages: Python, R, MATLAB, C++, C, HTML, CSS

Database Technologies: PostgreSQL, MySQL, MongoDB

Python Libraries: NumPy, Pandas, SciPy, Scikit-learn, Matplotlib, Seaborn, Opencv, ROS, Gazebo, UWSim, PyBullet,

Model Data Visualization: Matplotlib, Seaborn, Ggplot

FrameWorks : Node.js, React, ROS, Gazebo, Opencv, Tensorflow, Django

Miscellaneous skills: Linux, bash scripting, Data structures, Algorithms

Work Experience

Computer science tutor | Indiana University, Bloomington

November 2019 -present

Technologies: C, C++, Python

- Teach to write code in languages like C,C++,Python
- Help students understand core computer science concepts and mentor students

Intern | Swaayatt Robots, India

July 2017 - December 2017

Technologies: Python, C++, Matlab, ROS

- Implemented Visual odometry using OpenCV on C++, tested it on in house data sets collected from the self driving car.
- Increased the efficiency and speed of the given module on Kitti data set by almost **10%**.

Academic Projects

Autonomous Underwater Vehicle | Python, OpenCV, ROS, C++, Arduino

- Founder and software head of a team of around **30-40** students to develop an AUV(Autonomous Underwater Vehicle)
- Developed code using ROS for PID to control the AUV movements, wrote computer vision algorithms in OpenCV using C++/Python to detect objects in varying lighting conditions and complete the required tasks.
- Designed and partly developed the overall hardware stack required to run the robot.
- Developed code and libraries in C/C++ for Arduino for controlling around **6** motors.
- Invited to Singapore to participate in SAUVC'18 and secured a rank in the top **40%**.

Fair price shop messaging system | React, Django, MongoDB

- Developed a web app that provides a platform for Fair price shop owners (government subsidized food grain stores) to notify their customers majority of whom are below poverty line and can't afford a smart phone regarding updates related to food distribution, increased the customer footfall by almost **60%**
- Defined user Interface in React JS and backend using Django to fetch contact information using REST API and sent messages using Twilio. Adopted Git version control and used JIRA for task management

Image orientation | Python, Neural Network, Image classification, Machine learning

- Implemented a Neural Network from scratch in Python to detect the orientation of an image.
- Trained the network on a dataset of around 60,000 images and optimized the network to achieve maximum accuracy
- Achieved **90%** accuracy in the validation set.

Leadership

Trident Labs | Robotics club

- Founder of a student tech club that focuses on designing and manufacturing of an Autonomous Underwater Vehicle to participate in international competitions
- Trained and motivated a team of around **50** student to compete against some of the best Robotics in the world.
- Raised around **2000\$** dollars by conducting workshops and used that money to manufacture the Robot.
- Competed alongside student teams from **19** different countries and secured a spot in the top 20 teams.