

Madhav Somanath

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Experience

IEEE, IEEE Computer Society

VICE CHAIR STUDENT BRANCH GEC BARTON HILL

June 2018 - April 2019

- Vice chair of IEEE CS student branch of Government Engineering College, Barton Hill, voted the best upcoming student branch by IEEE Kerala Section 2019. Currently advisor and mentor to the current executive committee.

IEEE, IEEE Student Branch

WEB DEVELOPMENT HEAD

April 2019 - December 2019

- In charge for the creation of the IEEE webpage hosted by the student branch and also in charge of a team of five to maintain the website by updating events and reports to the main database.

Google Developer Students Club (DSC)

CORE TEAM MEMBER, BARTON HILL

August 2019 - Present

- Part of the core team which helps in organising events and sessions of the developer student club at Government Engineering College, Barton Hill, also an active participant for all sessions.

Web development team, Aagneya - GEC Barton Hill

AAGNEYA WEBSITE DESIGNER AND DEVELOPER

January 2019 - April 2020

- Responsible for creating the website for the techno-cultural fest of Government Engineering College, Barton Hill - Aagneya.
- Developed, designed and hosted the website with responsive design for Aagneya'19 and Aagneya'20.

Education

Government Engineering College, Barton Hill

BTECH IN ELECTRONICS AND COMMUNICATION

2016-2020 (Year of Graduation)

- CGPA 8.36 at the end of semester 7, — KTU 2020

Kendriya Vidyalaya, Pattom

- Passed 12th grade with 90% in CBSE board exams, (Computer Science stream) — 2016
- Passed 10th grade with 9/10 GPA in CBSE board exams, — 2014

Courses

Artificial Intelligence and Machine Learning course by IBM

IBM GLOBAL CERTIFICATION PROGRAM

- A one year course by IBM and ASAP-Kerala government to provide training in Artificial Intelligence and Machine Learning.
- Provides training in Python, Data Handling and Analytics along with a full certification, internship and flagship students project tackling real world problems.

Machine Learning with Tensorflow

UDACITY NANODEGREE PROGRAM

- A full scale Nanodegree which includes topics like Supervised learning, Unsupervised learning and Deep Learning with Tensorflow
- Each of the three topics included a project with real world data and specific targets to be met which were cleared.

Data Engineering with Google Cloud Professional Certificate

GCP BIG DATA AND MACHINE LEARNING FUNDAMENTALS (COURSERA CERTIFIED)

- A two week course provided by Google Developers Group India on the introduction to Big Data and Machine Learning fundamentals by Google Cloud Team.
- Includes learning with tools such as BigQuery, CloudSQL, Spark etc.

Full-Stack Web Development with React Specialization

THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY (COURSERA CERTIFIED)

- Two part course-work consisting of introduction to Front-end web development using react and Server-side development with NodeJS, Express and MongoDB.
- Includes multiple hands on projects which utilize the concepts of the MERN stack, which allowed me to deploy a Full stack web app on Heroku.

Projects

Melioration of IEEE 802.15.4 standard

FINAL YEAR PROJECT FOR GEC BARTON HILL DONE AT VSSC, ISRO

- The project involves addition of methods to reduce Bit Error Rate (BER) during transmission in 2.4GHz band involved in low rate wireless personal area network communication systems.
- The code and simulation work is done in Matlab and is tested using an ADLAM-Pluto Software Defined Radio kit.

K-Means Cluster Visualizer

LINK: [HTTPS://GITHUB.COM/MADHAV-SOMANATH/K-MEANS-CLUSTERING](https://github.com/Madhav-Somanath/K-Means-Clustering)

- Project to visualize cluster generation in K means clustering process, where the user can input model points such as number of clusters and points.
- Built on Vanilla JavaScript and uses D3.js for data handling.

Development of the AAGNEYA 2019 and 2020 Website

- Developed and designed a website based on HTML5, CSS and vanilla JavaScript for the Techno Cultural Event of Government Engineering College, Barton Hill.
- Responsible for full up-keeping of the website along with the team members, the website is hosted at the official link at "aagneya.co.in".

Internships

Virtual Intern at JP Morgan Chase

SDE INTERN, DATA ANALYTICS AND PYTHON.

April 2020

- Interfacing with stock data to select the required features and its analysis for further use in context.
- Using "Perspective" a JP Morgan internal tool to prepare data for visualization.
- With Perspective creating charts for traders dashboard properly visualizing the required results.

Summer Intern at VIKRAM SARABHAI SPACE CENTER (VSSC)

BASICS OF WIRELESS COMMUNICATION AND VHDL

August 2019

- Introduction into VHDL and basics of wireless communication in spacecrafts (VSSC Avionics Department)
- Under the guidance of Sir. Bibin Varghese, WSN Scientist VSSC, ISRO.

Intern at KELTRON

PYTHON AS A VISUAL INTERFACE PLATFORM

July 2017

- Introduction into Python and basic GUI within Python and how to interact with those elements.
- Handling testing with unit tests and debugging code for clean code set.