

# RAGHURAM C S

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## EDUCATION

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**BITS Pilani, Hyderabad Campus**

*2019-2023*

Bachelor of Engineering

Electrical and Electronics Engineering

*CGPA 7.65/10*

Minor, Robotics and Automation

## EXPERIENCE

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**Army Base Workshop**

May 2021 - July 2021

*Remote Intern*

*Hyderabad*

- Worked as a part of the Practice School 1 program, at BITS Pilani with the Electrical Power Systems team on Fuel Cell based power source for Usage at High altitude Areas.

## TECHNICAL STRENGTHS

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**Programming**

Python, C, C++, Verilog,

**Tools**

OpenCV, RobotOperatingSystem(R-OS), Tensorflow, Numpy, Pandas, Matplotlib

**Softwares**

Solidworks, MATLAB, Eagle-PCB, Xilinx, Emu-8086, Fusion-360

**Microcontrollers**

Raspberry-pi, Arduino

**Typesetting Document**

Latex

## PROJECTS

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**Underwater 2-D Mapping**

Feb- May 2021

Using OpenCV and the SIFT algorithm developed a efficient algorithm for mapping shallow underwater surfaces autonomously using an AUV.

<https://github.com/starceees/Mapping-algorithm-for-an-AUV-.git>

**Sign-Language to Speech**

Aug-Dec 2020

*IEEE BHPC Student Chapter*

Using OpenCV and Keras, Tensorflow generated a custom CNN for classifying a large data set of alphabets in a supervised machine-learning model to detect and convert real time sign-language input by an user to speech.

<https://github.com/starceees/Sign-Language-to-Speech.git>

**Time Series Forecasting of Water Quality Data**

July 2021 - Present

**Unsupervised Machine Learning Approach to Signal Classification**

July 2021 - Present

**Design and Development of a Soft Robotic Fish**

April 2021 - Present

- Developing a Robotic Fish with multiple degrees of freedom and also working on vision based slam techniques.

<https://github.com/starceees/Robotic-Fish.git>

## AWARDS AND RECOGNITIONS

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### IPAS-Challenge

May-2020

*SEDS and AEOLUS BPHC Team*

Our Team won 11th place out of 26 Teams, to design a UAV for martian exploration, where I helped develop an ortho-photo capturing and mapping idea using the drones on-board cameras.

<https://drive.google.com/file/d/1Og5RJsap985EnNoXAU3NYEQxvMbAYr/view?usp=sharing>

## CONFERENCE PUBLICATIONS

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**”Shallow Depth SIFT Based Approach for Mapping underwater surfaces using AUV’s”**

accepted in 21st International Conference on Control, Automation, and Systems (**ICCAS 2021**) to be held on October 12-15, 2021.

## EXTRACURRICULAR

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### PhoEniX

Sep 2019 - Present

*Position - Treasurer*

Worked on projects related in the field of robotics and mentored Juniors on relevant subsystems.

### SEDS BPHC

Feb 2021 - Present

*CUBESAT Team*

As a part of the Remote sensing Team Working on Hyper spectral imagery.

## COURSES COMPLETED

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### Discipline Courses

Computer programming, Mathematics 1, Mathematics 3, Probability and Statistics, Electronic Devices, Digital Design, Control Systems, Signals and Systems, Mathematics 3, Electrical Machines, Microelectronic Circuits, Microprocessor Interfacing.

### Electives

Remote Sensing and Image Processing, Control Systems Lab.