

SIDDHARTH SARAVANAN

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EDUCATION

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| BITS Pilani K K Birla Goa Campus
Bachelor of Engineering. (Hons.) Computer Science.
CGPA: 9.43/10 | <i>2018-2022</i> |
| Chettinad Vidyashram, Chennai
Class 12 (CBSE), Score: 94.4% | <i>2016-2018</i> |

EXPERIENCE

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| Teaching Assistant, BITS F320 | Ongoing |
| · I am a teaching assistant for the course BITS F320, Foundations of Data Science, at BITS Pilani K K Birla Goa Campus. | |
| CSIR-CEERI, Pilani
<i>Research Intern</i> | May - June 2020
<i>Pilani, India</i> |
| · I Worked on the project titled "Machine Learning Algorithms for Structural Health Monitoring". | |
| Teaching Assistant, CS F222 | August - December 2020 |
| · I was a teaching assistant for the course CS F222, Discrete Structures for Computer Science, at BITS Pilani K K Birla Goa Campus. I conducted a few tutorial sessions on the topics of propositional logic and graph theory. | |

PROJECTS

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| Segmentation Algorithms for High Resolution Images
<i>BITS Pilani, K K Birla Goa Campus</i> | May 2021 - Present
<i>Goa, India</i> |
| · Supervisor: Professor Sravan Danda, BITS Pilani, K K Birla Goa Campus. | |
| · Used morphological operations and Random Walker algorithm to perform image segmentation on High Resolution Images. | |
| ML/GAN Based algorithms for Remote Sensing and Cross Spectral Image Matching
January - May 2021
<i>BITS Pilani, K K Birla Goa Campus</i> | <i>Goa, India</i> |
| · Supervisor: Professor Nitin Sharma, BITS Pilani, K K Birla Goa Campus. | |
| · Developed a pipeline involving a GAN and a CNN which was capable of performing accurate image registration on non-registered cross-spectral, remote sensing images. | |
| Composition and Rendering of Bharatanatyam Performance
<i>BITS Pilani, K K Birla Goa Campus</i> | August 2020 - May 2021
<i>Goa, India</i> |
| · Supervisor: Professor Ramprasad S. Joshi, BITS Pilani, K K Birla Goa Campus. | |
| · Created human animations of a dancer performing the Indian dance form "Bharatanatyam". Used Blender and its Python API to create animations given a list of 30-dimensional vector codes. | |

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| Machine Learning Algorithms for Structural Health Monitoring
<i>CSIR-CEERI, Pilani</i> | May - June 2020
<i>Pilani, India</i> |
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- **Supervisors: Dr Kota Solomon Raju, Senior Principal Scientist,**
- **Dr Gaurav Purohit, Scientist.**
- Used Convolutional Neural Networks and Artificial Neural Networks to predict the structural integrity of a building using data recorded by accelerometers placed on adjacent floors of the structure.

TEST SCORES

TECHNICAL STRENGTHS

Programming	Python, Java, C, C++, C#, Assembly, MATLAB.
3D Modelling	Blender.
Game Engine	Unity3D.
Machine Learning	Python with Numpy, Pandas, Keras, TensorFlow and Pytorch.
Website (coded)	HTML5 and CSS

COURSE WORK

Completed

- Technical Report Writing, Probability and Statistics, Logic in Computer Science, Discrete Structures for Computer Science, Object-Oriented Programming, Digital Design, Microprocessing and Interfacing, Data Structures and Algorithms, Database Management Systems. Foundations of Data Science, Operating Systems, Principles of Programming Languages, Computer Architecture, Theory of Computation, Image Processing, Computer Networks, Design and Analysis of Algorithms, Compiler Construction.

Ongoing

- Computational geometry, Artificial Intelligence.

ACADEMIC ACHIEVEMENTS

100% Institute Merit Scholarship

- offered by BITS for academic achievement in my 2nd, 3rd and 4th Semesters. Awarded each semester to top 1% of students of each batch based on CGPA.

40% Institute Merit Scholarship

- offered by BITS for academic achievement in my 1st and 5th Semesters. Awarded each semester to top 2% of students of each batch based on CGPA.

Vertical Transfer

- I was offered a chance to change my degree to B.E Computer Science after my freshman year, by BITS, Pilani. It is only offered to exceptionally meritorious students.