

Prabha Sahiti Mandaleeka

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EDUCATION

Indian Institute of Information Technology Design and Manufacturing, Kancheepuram
Bachelor of Technology **July 2016 - May 2020(Expected)**

- **Major:** Electronics and Communication Engineering with a specialization in Design and Manufacturing
- **CGPA - 8.89/10** (as of semester - 6)
- Relevant Courses: Advanced Digital Signal Processing, Embedded Systems Design, Signals and Systems, Control Systems, Systems Thinking for Design, Designing Intelligent Systems
- Workshops and Certifications: Fundamentals of Neuroimaging(Coursera), Biomedical Image Analysis (DataCamp), Digital Image Processing (NPTEL), Biomimicry Workshop (Biomimicry India Network), Electronic Systems for Cancer Diagnosis (NPTEL - Ongoing), Introduction to Cognitive Psychology (NPTEL - Ongoing), Machine Learning (Coursera - Ongoing)

Sri Chaitanya Junior College
Senior Secondary

July 2015 - May 2016

- **Percentage:** 97.7% with the Telangana State Board for Intermediate Education

PUBLICATIONS

Reliability of Smart Wearable Device PHEEZEE Versus Other Traditional Devices in a Podiatric Setting: A Comparative Study **September, 2019**
Haaris Mohsin Moosa, Mythreyi Kondapi, Prabha Sahiti Mandaleeka, Susurla V S Suresh

[Abstract](#) in proceedings of the **IFASCON 2019**, *32nd Annual Conference of the Indian Foot and Ankle Society.*

INTERNSHIP EXPERIENCE

Project Intern

January 2020 - Present

Mentor: Dr Karthic Narayanan

MaDeIT Innovation Foundation

- Worked on the physiological modelling of athletes.
- Designed and developed the statistical inferencing and the predictive model to monitor athlete performance.

Artificial Intelligence Engineering Intern

October 2019 - December 2019

Mentor: Murugesh SK, CEO

Scermlind Healthcare

- Worked on Heart Rate Variability and Activity data for their device, 'UruFit'.
- Designed the preprocessing engine for the Machine Learning algorithm to evaluate athlete fitness.
- Designed the algorithm to monitor stress and recovery in athletes.

Systems Engineering Intern

May 2019 - October 2019

Mentor: Susurla V S Suresh, CEO & Managing Director

Startoon Labs

- Worked on the Signal Preprocessing, Parameter extraction and analysis of the Electromyographic (EMG) Signal for their device, 'Pheeze'.
- Improved the accuracy of the IMU algorithms for the foot and ankle, at the firmware end on Segger Embedded Studio.
- Designed the accuracy testing procedure and conducted the testing on healthy subjects.

- Performed market research to determine the parameters for data analysis.

Startup Sandbox Program

December 2018

Mentor: Dr Sudhir Varadarajan, CEO

MaDeIT Innovation Foundation

- The Startup Sandbox Program, organized by MaDeIT, in collaboration with Entrepreneurship Development Institute of India (EDII), was a three-week Entrepreneurial Bootcamp.
- My team worked on technological interventions for adherence to the tuberculosis drug regimen.
- Performed market analysis, came up with product design, proof of concept and business plan for our product - 'Konseous'.

ACADEMIC PROJECTS

Breast Cancer Detection

November 2019 - December 2019

- Implemented an algorithm in Python on the MIAS Database to detect the probability of Breast Cancer using a Convolutional Neural Network.

ECG Signal Enhancement using an Adaptive Kalman Filter

January 2019 - May 2019

- Implemented an algorithm in MATLAB to enhance the ECG Signal extracted from surface electrodes embedded in smart textiles.

Chronic Wound Monitoring System

January 2019 - May 2019

- The device aims at improving the healing time of chronic wounds by monitoring surface parameters like moisture and temperature of the wound area.
- Worked on the embedded system design for the AT Tiny.
- Designed a flexible, fractal based, biocompatible sensor to detect moisture in the wound area.

Bio-mimicking Air Filter

July 2017 - December 2018

- The system is a mobile air quality monitoring system with filters that mimic the silver birch's leaf structure to capture particulate matter.
- Worked on the product conceptualization, design, business plan and market strategy over three semesters.

TECHNICAL SKILLS

Languages

Python, MATLAB, C, Embedded C

Libraries

ImageIO, Keras, Scikit-Learn, Tensorflow, Pytorch, OpenCV

Tools

Arduino, Raspberry Pi, CUDA, Segger Embedded Studio, Signal Processing, Image Processing, Machine Learning, Deep Learning

POSITIONS OF RESPONSIBILITY

Student Affairs Council

July 2019 - Present

Academic Affairs Secretary

IIIT-DM Kancheepuram

Institute Innovation Council

July 2018 - Present

Member

IIIT-DM Kancheepuram

The Undergraduate Mentor-Mentee Program

July 2018 - May 2019

Mentor

IIIT-DM Kancheepuram

Institute Placement Cell

December 2018 - May 2019

Coordinator

IIIT-DM Kancheepuram

Illiterati, The Institute Literature Club

July 2018 - May 2019

Secretary

IIIT-DM Kancheepuram