

Shraddha Sharma

10 Jelebu Road, Singapore 677672

✉ shraddha.hna@gmail.com

🌐 shraddha-hna

☎ +65-86558813

AREAS OF INTEREST

Linear Algebra, Signal Processing, Machine Learning, Artificial Intelligence

EDUCATION

Nanyang Technological University

Master of Engineering in Robotics and Artificial Intelligence

Overall GPA: 3.83/5.0

Singapore

Jan 2018 - Jan 2020

The LNM Institute of Information Technology

Bachelor of Technology in Electronics and Communication Engineering

Overall GPA: 7.74/10.0

Jaipur, India

Aug 2012 - Jun 2016

ACADEMIC PROJECTS

Nanyang Technological University

Masters Project Title: Indian Classical Vocal Training Tool

- Designed and developed a personalized vocal training tool for learning Indian Classical music.
- Implemented machine learning algorithms to provide detailed analysis of user's vocal ability.
- Research work got accepted for poster presentation at "Women in Music Information Retrieval" workshop, Paris.
- Paper published in International Conference on Intelligent Autonomous Systems (ICoIAS 2019), Singapore.

Singapore

Jan 2018 - Jan 2020

The LNM Institute of Information Technology

B.Tech. Project Title: Wireless Transmission of Solar Power

- Devised a system for capturing solar power and calculated its efficiency.
- Generated a simulation model of the Antenna system for wireless transmission of Solar power.

Jaipur, India

Aug 2015- May 2016

WORK EXPERIENCE

Biofourmis Pvt. Ltd.

Data Scientist

- Formulated and executed a signal processing based research concept to detect Obstructive Sleep Apnea using ECG signals.
- Created machine learning models to identify Sleep Apnea and QT anomalies. Enhanced an existing model for detecting Atrial Fibrillation.
- Devised a signal processing algorithm to detect pauses.
- Acquired research expertise in examining clinical guidelines, journals, databases, and systematic review papers to develop the machine learning model.
- Developed proficiency in designing model specifications and interpreting ECG patterns

Singapore

Apr 2021 - Nov 2023

Entrepreneur First

Founder in Residence (CTO)

- Build the model for bridging the gap between music instructors/schools and students.
- Designed a Figma based mock prototype and python based Graphical User Interface (GUI) for customer validation.

Singapore

Feb 2021 - Mar 2021

Singapore Mass Rapid Transit (SMRT) Lab@NTU

Research Engineer

Singapore

Jan 2020 - Jan 2021

- Worked on SMRT team project of signal classification.
- Built a machine learning model to classify different SMRT signals and detect the interfering signal.
- Developed a pattern recognition algorithm using statistical approach.

Dauwels Lab@NTU

Project Officer

Singapore

Apr 2019 - Oct 2019

- Worked on 2 team projects of human behaviour analysis.
- Extracted emotional features from the video data by applying "Affectiva Algorithm" and processed it to extract meaningful information.
- Labelled audio data and created a bash script to edit video data.
- Implemented time-series analysis on video data by calculating correlation between different emotions and created hypothesis to find collaboration.

Hacklab Innovations Pvt. Ltd.

(Intern) Embedded Engineer

Bengaluru, India

Jul 2017 - Nov 2017

- Worked on individual projects of embedded systems including indoor localization and asset tagging system.
- Calibrated water level sensor and plotted real time graph to display water level.
- Interfaced different sensors with MSP430-EXP529LP and implemented UART, SPI and I2C communication.

TECHNICAL SKILLS

Computer Languages	Python- sklearn, numpy, pandas, tensorflow, Bash(Shell scripting)
Hardware Platforms	Arduino, BeagleBone, Raspberry Pi
Electronics Tools	Microwind, Xilinx, VHDL
Misc Tools	LaTeX, Vim, Git

AWARDS AND ACHIEVEMENTS

ICoIAS Conference, NTU, Singapore

28 Feb - 1st Mar 2019

- Paper titled "Design and Development of Indian Classical Vocal Training Tool" accepted for publication and received best presentation award in 2nd International Conference on Intelligent Autonomous Systems(ICoIAS).

Singapore-India Hackathon, NTU, Singapore

12-14 Nov 2018

- Selected in top 10 teams of Singapore-India Hackathon.
- Developed a tool for Wayfinding and included features like Wi-Fi strength, QR code, Visual aid(Camera) and audio signature identifier for indoor tracking.

Poster Presentation, Paris, France

28 Sep 2018

- Research Work on Indian Classical Vocal Training tool selected for poster presentation in Women in Music Information Retrieval(WiMIR) workshop.
- Developed project on Discovering Emotion from Musical Segments in a team project session of WiMIR.

Open Source Initiative

Apr 2017

- Terminal Vocabulary Trainer for OSX and Linux.

github.com/shraddha-hna/wonder-word

Line Follower Robot, IIT Kharagpur, India

Feb 2013

- First Prize in Autonomous Line Follower Robotic Competition.
- Later, a PID-based implementation was done for Robo race in IIT Kharagpur (Kshitij 2013).

Co-Curricular Activities

- Winner of International Dance Championship in Singapore.
- Bollywood Dance Crew leader of NTUGSA group of NTU, Singapore.
- Event Organiser and emcee of Fresher's got talent and Karaoke Night in NTU, Singapore.
- Yellow belt holder in Karate and Sports Captain for Basketball and Kho Kho in School.
- Vocal Training in Hindustani Classical Music.
- Dance Competition winner for several consecutive years in school.