Souvik Saha

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Education

Universität Stuttgart — Stuttgart
MSc Information Technology *GPA: -* — October 2023 - Present

Vivekanand Education Society's Institute of Technology — Mumbai, India
BE Instrumentation Engineering *GPA: 7.86* — July 2015 - June 2019

Experience

Sleepiz AG — Remote
Studentische Hilfskraft — December 2023 - Present
Sleepiz India Pvt. Ltd. — Pune, India
Embedded Software Developer — July 2021 - September 2023

- Responsible for the development and maintenance of embedded software and reduced device recalls from pre-production to deployment by 50%
- Identified requirements for new features adhering to IEC 60601-1, IEC 60601-1-2 and FDA
- Coordinated embedded software verification, release, and deployment activities for a fleet of over 1000 devices in India, Europe and USA
- Established and maintained technical documentation for embedded software in accordance with ISO 13495 and testing as per IEC 62304

Ayu Devices Pvt. Ltd. — IIT Bombay, India
Embedded Systems Engineer — July 2019 - June 2021

- Successfully implemented noise cancellation algorithms to reduce background noise by -3dB
- Helped in device development by selecting high quality audio components, reducing noise by -6dB
- Improved the team's efficiency by 30% through automating various manual tasks in the testing process
- Contributed to the development of an automated testing harness reducing test times by 50%

Projects

100W Electronic DC Load with Charging and Discharging Modes (June 2018 - March 2019)
Arduino, EagleCAD, PID — https://bit.ly/3BumYZh
Worked in a team of 4 to develop an electronic DC Load, which can cyclically charge and discharge a battery at a maximum of100W and prepare its discharge curve in real time. Project developed for Bachelors Final Year Thesis.

Texas Instruments India Innovation and Design Challenge 2017 (August 2017 - Febuary 2018)
ARM, Linux, BeagleBone
Led a team of 4 and proposed business model for the idea 'Portable Railway Track Flaw Identifier' after market research. Team reached the quarterfinals stage.

eYantra Robotics Challenge 2016 (August 2016 - March 2017) *Python, OpenCV, Atmega2560*
Worked on the Firebird V platform based on Atmega2560 and utilized OpenCV on Python to navigate a robot through a grid to perform pick and drop operations based on object size, shape and colour. Team reached the quarter finals of the competition.

Publications

S G Dubey , DSS Sudhakar and S Saha 2021 IOP Conf. Ser.: Mater. Sci. Eng. 1070 012109
doi:10.1088/1757-899X/1070/1/012109
Co-authored a paper which deals with using ANSYS fluid flow simulation to predict the air flow inside the enclosure and redesigning it to improve acoustic performance.

Open Source Work
Published Arduino libraries to interface IC MCP3202 and IC DAC7611 to Arduino compatible boards.

Skills and Interests

Technical Skills:	C, C++, Python, Tensorflow, OpenCV, Linux, Arduino, ARM, Git, Yocto, gcc, Eagle
Personal Interests:	Teaching, Running, Hiking, Squash, Football, Piano, DIY Electronics