Satvik Deshmukh

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EDUCATION

Dwarkadas J. Sanghvi College of Engineering, University of Mumbai | IN July 2018 – May 2022
Bachelors of Engineering in Electronics & Telecommunication *9.29 CGPA*
Relevant Courses: Digital System Design, Electronic Devices & Circuits, Linear Integrated Circuits, Microprocessors & Peripherals, Big Data Analytics, Database management systems, Image Processing & Machine Vision

EXPERIENCE

Android Application and R&D Engineer June 2022 – Present
Samsung R&D Institute *Noida, IN*

- Contributing and maintaining Together module of Samsung Health App
- Cross functionality development across multiple Mobile as well as wearable devices
- Worked on architectural redesign and refactoring of legacy code to increase maintanibility
- Reduced load time of Together dashboard by 50%, impacting around 2 million active users globally
- Proficient in Kotlin, Retrofit, Coroutine, and MVVM architecture, with ongoing research in health and habit tracking

Product Development Intern November 2020 – Feburary 2021
K-Nine, Healthcare Division *Mumbai, IN*

- Developed of a computer vision-based device called WorkSafe for multiparameter monitoring to measure core body temperature, heart rate and saturated oxygen using remote photoplethysmography
- Responsible for R&D, testing of hardware and software integration
- Optimized the cost of the device by 24% by making a custom breakout board for the MLX90614 pyrometric sensor
- Proficient in using NodeMCU, ESP32 Camera and Solidworks

RESEARCH AND PUBLICATIONS

EYE-Stick (Smart Assistive Device for Visually Impaired) | DJ SPARK 2020 IETE-SF Link
Aqua-bin (Automated Water Waste Collection Device) | DJ SPARK 2021 IETE-SF Link
S.A.R.A (Smart AI Refrigerator Assistant) | ICDSAI 2022 Springer Link

PROJECTS

Buzzbeat | *Android, Neosensory Buzz, Edge Impulse Studio* Hackster Link

- Engineered a device to measure SpO2, heart rate, heart rate variability, and body temperature
- Created an Android application to interface with the Neosensory Buzz device
- Enabled real-time haptic feedback to alert users of critical health parameter changes

Canister Satellite (Assc. DJS Arya) | *Embeded systems, PCB designing, XBEE modules, Antenna*

- Developed the flight software with Teensy microcontrollers, and integrated various weather sensors
- Established end-to-end communication between the CanSat and ground station by configuring XBEE modules over Zigbee protocol
- Spearheaded development of ground station software, enabling real-time data plotting from the CanSat, enhancing mission monitoring and control.

CERTIFICATIONS & ACHIEVEMENTS

- Samsung Software Competency – Professional
- Aritificial Intelligence – Intermediate training
- Participted in CanSat competitions, achieving 9th and 12th global rankings
- Successfully passed three certified examinations for tabla playing, demonstrating discipline, cultural engagement, and mastery of Indian classical music