Anjali Murali

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EDUCATION

B. Tech Electronics & Biomedical Engineering July 2019
Govt. Model Engineering College, Cochin, India 8.09/10 GPA

TECHNICAL SKILLS

Programming Languages: Python, C/C++, MATLAB
Software tools: Eclipse, Keil, STM32 ST-LINK Utility, SEGGER
Hardware Tools: Logic Analyser, BLE TI Sniffer, DSO
Communication Protocols: I2C, UART, SPI, DALI, BLE
Operating System: Windows, Linux
Server Tools: GIT, Redmine, JIRA

PROFESSIONAL EXPERIENCE

WiSilica, Cochin, India: Embedded Software Engineer August 2019 - February 2023

- Designed, developed and validated embedded software blocks within WiSilica IOT device platform.
- Collaborated with core engineering teams on system-level investigation, issue tracking and resolution.
- Participated in the definition of both functional and non-functional requirements of the system and translated those into software in line with project vision.
- Reduced development time and bugs in release cycles by refactoring parts of code base and tools.
- Created portable code for bare-metal and RTOS based solutions across multiple MCUs using embedded C.
- Revamped device production support scripts and test firmware to reduce production process time by 50%.

ubio Biotechnology Pvt Ltd, Cochin, India: Project Intern June 2018 - July 2018

- Assisted in developing a prototype of a fully automated portable low cost fluorescent reader for rapid test of Dengue disease.
- Built a GUI enabling patient detail entry for the patient management system using python tkinter.
- Added functionality allowing sample cartridges to be moved through the analysis equipment using stepper motors, improving usability.

RELEVANT PROJECTS

Connected lighting control system WiSilica

- Worked on a proprietary BLE wireless network for control of RGB, CCT based smart lighting devices.
- Enhanced existing features and developed new firmware solutions that enabled the launch of new connected lighting products, functionality and services.
- Ported proprietary BLE mesh to nRF5 SDK FreeRTOS based solution.
- Evaluated and integrated new technologies to WiSilica lighting control system.
- Reduced time taken for device OTA updates by 90% through scheme modifications that improved throughput.

Real time location system for indoor tracking WiSilica

- Worked on a BLE RSSI based indoor tracking and alerting system for efficient asset utilization and enhanced safety.
- Performed device bring up and power optimization for tag, listener.
- Developed tag to listener to gateway BLE messaging protocol.
- Created a linux based tag simulator application for performance evaluations which resulted in easier development and test setups.

Non-invasive Knee Osteoarthritis Diagnosis Govt. Model Engineering College

- Developed a prototype for diagnosis of arthritis by acquisition, processing and classification of Vibroarthrographic signals from knee joints of patients.
- Followed all stages of the ML modeling cycle like data preparation, normalization, training, evaluation.
- Utilized scikit-learn SVM classifier for classification of Vibroarthrographic signals.

VOLUNTEER WORK

Make a Difference: Academic Support Volunteer July 2019 - June 2021

- Tutored underprivileged high school (Grade 11 & Grade 12) students.