# Brijesh Singh Panwar

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Hyderabad

## Summary

Detailed-oriented Embedded Software Engineer with over two years of experience and a strong technical/coding background that is essential to this role, including C, C++.

## Employment History

### Software Engineer

Avantari Technologies • Hyderabad, Telangana
01/2020 - Present

Development and testing of SPI Flash Drivers

Build and impelement IR sensor using i2c protocol

Development of a python based GUI application for production and testing

Worked with Bluetooth low energy, Git ,Embedded C, Free RtOS, Linux, Python, Segger Embedded Studios, Nrf SDK, nrf52832 and nrf52840

### SOFTWARE ENGINEER

AlphaICs • Bengaluru, Karnataka
07/2019 - Present

Responsible for Firmware Development for Hardware Accelerator

Linux kernel image creation using Peta-Linux tool , adding applications and modules to the kernel image

responsible for creating  U-BOOT image and testing for possible faults

Verifying board for available features like SPI, I2C,CAN etc.

Working on TensorFlow, Convolution Neural Networks Python

### Intern

Gadgeon Smart Systems Pvt Limited • Kakkanad, Kerala
08/2018 - 07/2019

1.Development of a prototype for a irrigation automation system using Bluetooth Low Energy Mesh

2. Developed firmware for Low Power Node, Relay Node on nrf52832

3. Developed firmware for Bluetooth LE - Internet Gateway for communication for Bluetooth devices with the internet

4. Stored the data in the Cloud for monitoring data

5. Developed kernel image for gumstix board using Bitbake tool

6. Worked for application development for front end and back end on C#

### Administrator

Wipro Technologies CDC 5 SEZ • Chennai, Tamil Nadu
09/2016 - 08/2017

- Embedded C
- nRF52832/nRF52840 SoC
- Linux OS
- VxWorks
- I2C Protocol

- Bluetooth Low Energy Mesh Stack
- Segger Embedded Studios
- Python
- SPI Protocol
- SPI Flash

## Master's Degree, ECE (Electronics and Design Technology)

National Institute of Electronics and Information and Technology • Kozhikode, Kerala
Graduated - 08/2019

**Knowledge in**

**Embedded Programming :** Embedded C :ARM Cortex M3 and M4 ,NVIC,Timers, UART , C++, Python etc.

**Embedded OS :** Linux OS,Process,threads,Inter Process Communications Pipes ,shared memory etc,Linux Device Drivers

**Real Time OS :** Vx Works,Pipes,Semaphores, Tasks, Scheduling etc.

**Internet of Things (IoT) :** Bluetooth Low Energy, Wifi , ZigBee, BLE Mesh, MQTT, Amazon AWS, Managed Flooding Routing Protocol,Dynamo DB, BLE – Internet Gateway

**M.Tech First Semester Project** : *Automated Bus Ticketing System Using RFID Sensor and Raspberry Pi*

An automated bus ticketing system that which would enable paperless transaction where every user would have an RFID tag based on which the bus fare would be calculated for the user .

**M.Tech Second Semester Project** : *Smart Electricity Monitoring and Control System using Raspberry Pi and Telegram Messenger*

A monitoring system for household electric meters which calculates the power consumption based on the LED Blinks of the system.

**M.Tech Thesis** : *Implementation of Bluetooth Low Energy Mesh For Monitoring and Control Of Soil Parameters*

An implementation of irrigation automation system based on Bluetooth Mesh network and various advantages of BLE mesh protocol over other wireless protocols

**M.Tech Internship** : GadgEon Smart Systems

## Bachelor's Degree, Electronics and Communication Engineering

Karunya Institute Of Technology ( Deemed University) • Coimbatore, Tamil Nadu
Graduated - 07/2016

Bagged best project award for the Final year Project

 **Final Year Project** : *Voice Controlled Smart Bed using Atmega for Physically Challenged*

A prototype for a device which can control the motion of a bed based on the commands , a person with a disability to sit straight by his own would not require any assistance if the device is installed.

Achievements

1. Bagged Best Project Award in ECE dept. for the year 2015-16.
2. 2nd position in Micromania during ECE association events
3. 3rd place in short film competition at Govt. College of Technology
4. 3rd place in quiz competition at Jansons Institute of Technology
5. 2nd position in follow fellow event at Jansons Institute of Technology

**Languages**

- English
- Hindi