Jyothirmai Boyapally

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# LINKEDIN

https://www.linkedin.com/in/jyothirmai-boyapally-embedded-software-engineer

# Objective

Embedded Engineer with around 3 years of hands-on experience specializing in Linux Device Driver Development and embedded systems. Adept at working with FreeRTOS, RTOS-based firmware development, multithreading, and low-power mode implementations. Proven expertise in driver development for various hardware peripherals and communication protocols (I2C, SPI, UART, USB). Skilled in C, C++, Embedded C, and Linux kernel development, with a strong ability to collaborate effectively with cross-functional teams and manage projects using Jira and Git. Committed to delivering high-quality solutions and continuously improving technical capabilities.

# Skills

TECHNICAL SKILLS Languages: C, C++, Embedded C, Data Structures Device Drivers & OS: Linux

Kernel, FreeRTOS

Protocols: I2C, SPI

Tools: Jira, Git, ADB Commands

Operating Systems: Linux, FreeRTOS

Experience

* BITSILICA 10-2024 – 12-2024

EMBEDDED SOFTWARE ENGINEER

Contributed to development projects and quickly adapted to the company’s technology stack and processes. . Collaborated with team members to ensure high-quality software development and project delivery

THUNDERSOFT 09-2023 - 01-2024

SOFTWARE ENGINEER -I

. Trained in C++ programming, contributing to project management via Jira.

. Cross-trained team members in C++ programming.

. Facilitated effective communication to understand project requirements and deliver results.

CAPGEMINI 11-2021 - 08-2023

ASSOCIATE ENGINEER -I

. Developed embedded software solutions for interfacing with sensors and peripherals using various communication protocols (SPI, I2C, UART).

. Designed and implemented low-level drivers and integrated them into larger system architectures.

. Collaborated with cross-functional teams, including hardware engineers, to ensure robust system design and successful project execution.

. Delivered technical support and ensured proper documentation for software projects.

Projects

# DEVELOPMENT OF VCNL4200 AMBIENT LIGHT AND PROXIMITY SENSOR

. Developed Linux device driver for the VCNL4200 sensor using I2C interface.

. Wrote, tested, and validated the driver in C.

# DEVELOPMENT OF GPIO DEVICE DRIVER

. Contributed to a project involving the GPIO device driver to control GPIO pins on the Raspberry Pi, including toggling LEDs connected to GPIO pins.

Ensured efficient and reliable GPIO pin handling through low-level driver implementation in C on Linux.

# DEVELOPMENT OF I2C EEPROM SLAVE DEVICE DRIVER

.Worked on I2C device drivers for an EEPROM as a slave, enabling user applications to read from and write to the EEPROM.

.Enhanced driver performance and robustness, conducting extensive testing for reliability.

# DEVELOPMENT OF SPI EEPROM SLAVE DEVICE DRIVER

. Contributed to SPI slave device drivers for an EEPROM, facilitating read and write operations from user applications.

Focused on low-latency and high-reliability driver design and testing using C programming on Linux.

## Education

2020

JNTUH

Siddhartha institute of science and technology 7.05