

# Jyothirmai Boyapally

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## LINKEDIN

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

## Objective

Embedded Engineer with 2.7 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

- **THUNDERSOFT** 01-09-2023 - 19-01-2024  
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** 29-11-2021 - 25-08-2023  
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

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- **JNTUH**

Siddhartha institute of science and technology

7.05

2020