

BATTULA TARUN KUMAR

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CAREER OBJECTIVE

Looking to begin my professional career by enhancing my skills and knowledge in a dynamic team-oriented environment. With hands-on experience through internships and trainee roles, I am passionate about learning new technologies and contributing meaningfully to organizational goals while developing both personally and professionally.

TECHNICAL SKILLS

- Proficient in C, C++ & basics of Embedded C programming.
- Experienced in UART, SPI, I2C and CAN communication protocols.
- Knowledgeable in Microcontrollers, Processors, and Embedded systems concepts.
- Basic knowledge on RS232 & RS485 and Computer networking (OSI & TCP/IP).
- Hands-on experience on Keil IDE and GCC Compiler.
- Solid knowledge in debugging tool GDB.
- Proficient in Linux commands.
- Knowledge on Git, GitHub and Yocto.

EXPERIENCE

Embedded Software Engineer

Truminds Software Systems - Hyderabad, Telangana

[Mar 2025 – Present]

INTERNSHIP

VECTOR INDIA PVT LTD. (DEC 2023 - FEB 2025)

- Gained expertise in programming languages: C, C++, and Embedded C.
- Practical experience in Microcontroller programming and Processor architectures.
- Hands-on training in protocols like UART, I2C, SPI, and CAN.
- Learned basic Linux commands and concepts in Computer Networking.
- Strong foundation in Embedded System Design and Debugging Techniques.

PROJECTS

GSTREAMER-BASED MULTIMEDIA PLAYBACK ON RASPBERRY PI 5

Components & Tools: GStreamer, ALSA, Linux Framebuffer, Yocto Project, Raspberry Pi 5

- Integrated GStreamer plugins into the yocto image for multimedia playback.
- Used gst-launch-0 to play MP4 videos WAV audio framebuffer.
- Resolved audio issues by enabling and verifying kernel modules like snb_bcm2825.

YOCTO-BASED LINUX IMAGE DEVELOPMENT FOR RASPBERRY PI 5

Components & Tools: Yocto Project, Bit Bake, Raspberry Pi 5, Linux Kernel.

- Built a minimal custom Linux image of Raspberry Pi using yocto project (Poky).
- Created custom layers and recipes for apps and system settings.
- Worked with bootloader setup and customized bblayers.conf and local.conf for target builds.

IOT BASED INDUSTRIAL MONITORING USING THINGSPEAK

Components & Tools: LPC2148, DHT11, ESP01 Wi-Fi module, Keil µVision.

- Data is uploaded continuously to Thing speak for visualization and analysis.
- Temperature, Humidity, were sensed by the sensors in the industry for the workers and equipment safety.
- IOT technology that involves connecting various devices to the internet to enable them to communicate and share data.

EDUCATION

Bachelor of Technology (B. Tech) in Electronics and Communication Engineering (ECE)

Baba Institute of Technology and Sciences

CGPA: 7.23 | 2019 - 2023

Intermediate in MPC

Vasu Junior College

CGPA: 9.04 | 2017 - 2019

10th in SSC

Terli High School & Convent

GPA: 9.3 | 2016 - 2017

CERTIFICATIONS

- **Advanced Embedded Systems** under by Vector India Pvt Ltd.
- Participated in a 3-day **Internet of Things (IOT)** value added course conducted by Tierra Automation.
- Attended a 1-day **Electric Vehicle (EV)** workshop organized by Vihaan Electric