Yadunath R

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EDUCATION

TKMCE
BTECH IN EEE
May 2018 | Kerala
Cum. GPA: 9.34 / 10.0
University Rank 6

LEARNINGS

COURSERA
FPGA Design for Embedded Systems
Linux fundamentals

OTHERS
Embedded Code for Production Code Generation from Matlab
Advanced C++ from Degreed

TECHNICAL SKILLS

PROGRAMMING
C • C++ •
HTML•CSS•CAPL
Familiar:
Python•Linux•Assembly

TOOLS
Matlab• Simulink•
Multisim• Vector

PROTOCOL
I2C• UART• CAN• SPI•
RS232.• RF

KNOWLEDGE

Embedded programming
Software testing
Knowledge on Power converters, ARM CORTEX M,RISC,CISC,
MSP430, STM32,PIC16F, RL78 microcontrollers,RTOS,Embedded Linux using Yocto Project

EXPERIENCE

BOSCH | SOFTWARE ENGINEER
Sept 2022 - Present | Bangalore,karnataka

- Contributed to developing radar systems software using the Infineon TC39 microcontroller.
- Enhanced diagnostics, failure management, and ADAS features for clients including Mercedes-Benz, Honda, Renault, and Nissan.
- Optimized processes to cut testing time by 10%.
- Collaborated with hardware and software teams to ensure compliance with CAN standards and protocols.
- Created a key generation application for Type 1 security, reducing process time by nearly 25%

LARSEN AND TOUBRO LIMITED | DESIGN ENGINEER
Sept 2018 – Jan 2020 | Mysore,Karnataka

- Led software development for three-phase energy meters and LTCT meters using the RL78/I1C (Renesas) 16-bit microcontroller.
- Utilized I2C, Sampark, IrDA, DLMS, and RS232 protocols.
- Developed an interface for IrDA communication and CRC error checks, shortening the process by 75%.
- Implemented bi-directional meters for enhanced functionality.
- Improved battery mode operation, reducing battery consumption and size, leading to a 5% reduction in production costs.

PROJECTS

THERMOMETER DEVELOPMENT USING PIC MICROCONTROLLER
Tools-PIC microcontroller,MPLAB IDE,LM35
Created a thermometer that measures temperature with an LM35 sensor and a PIC16F877A microcontroller, displaying the readings on a 7-segment display.

PASSWORD PROTECTOR USING MSP430 MICROCONTROLLER
Tools-MSP430,Code composer studio
Developed a tool allowing users to lock and unlock systems with a password, increasing security and ease of use

REACTIVE POWER COMPENSATION USING INFINITE LEVEL INVERTER
Tools-Matlab Simulink
Designed a new VSI topology that increases voltage levels and improves DC link use, making reactive power compensation more efficient.

APPLICATIONS

- Engineered an application for IrDA communication, CRC calculations, and security key generation, reducing error rates by 30% and processing time by 25%.

RECOGNITIONS

2018	University rank 6	Graduated from TKMCE
2020	Innovation Award	Larsen and Toubro Innovation Award
2021	Gate rank 2000	Gate Exam