Anubhav Dutta

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EXPERIENCE

L&T PRECISION ENGINEERING SYSTEMS
System Design Engineer
Jul 2023 – Present | Pune, Maharashtra

Embedded Systems & Firmware Development
- Developed and maintained embedded software in **C/C++** for power-critical radar applications using **VxWorks RTOS**.
- Hands-on experience with **real-time system design**, microcontroller architecture, and low-level firmware debugging.
- Collaborated with cross-functional teams for feature implementation, validation, and performance optimization of firmware components.
- Utilized debugging tools such as **logic analyzers** and **oscilloscopes** for hardware-software integration and validation.

Radar Power Systems & Hardware Integration
- Specialized in Radar Power Systems, including switchgear specification, cable routing, and harness chart creation for defense-grade hardware.
- Designed and integrated **VME-bus based systems** supporting high-throughput and real-time data communication.
- Engineered PLC-based control systems with **ladder logic**, **structured text**, and **FBD**, interfacing with industrial automation protocols.

Product Lifecycle Management
- Created and maintained BOMs and managed component obsolescence for PDUs, junction boxes, and control panels.
- Handled **change management, CAD-integration**, and configuration control to support iterative product improvements.

Tools and Platforms:
Dassault 3DEXPERIENCE ENOVIA, Siemens NX UGNX, Zuken E3, AutoCAD, QT5, Automation Builder

ARTIFICIAL LEARNING SYSTEMS | Assistant Software Engineer Intern
January 2022 – March 2022 | Kolkata, West Bengal
- Developed a real-time operable webpage using AngularJS and SocketIO.
- Built a joystick-based controllable 3-axis frame using ESP32 and Raspberry Pi, utilizing RTOS.

Frameworks used: SocketIO, AngularJS, RTOS, ESP-IDF, Linux

BUFO INNOVATIONS PVT. LTD | IoT Application Developer Intern
December 2021 – January 2022 | Kolkata, West Bengal
- Developed code, assembled hardware prototype, and designed schematics for an IoT Gateway linking to PLCs using Modbus RS-485 for monitoring energy meters and industrial sensors.
- Optimized code using ArduinoJSON to minimize payload size, enabling narrowband communication to an AWS database.

Frameworks used: Arduino, EasyEDA, KiCAD, Linux

EDUCATION

KALYANI GOVERNMENT ENGINEERING COLLEGE
Kalyani, West Bengal

Bachelor of Technology in Electronics and Communication
June 2019 - July 2023

Cum. GPA: 9.0 / 10.0

SKILLS

PROGRAMMING LANGUAGES
• C • C++ • Python
JavaScript • Java
Verilog • HTML • CSS

FRAMEWORKS
• NodeJS • AngularJS • RTOS
UART • MQTT • BLE

VERSION CONTROL TOOLS
• Github • BitBucket

EMBEDDED SYSTEMS & TOOLS
• ESP32 • Raspberry Pi • KiCAD
Modbus RS-485 • Embedded Linux

CERTIFICATIONS

Siemens Scholar 2019
SMSCP Level 1 Qualified

LANGUAGES

- English (Fluent)
- Hindi (Fluent)
- Bengali (Native)

PROJECTS

- Fault Detection System
  Fault detection of items using openCV and MQTT.

- 8-Bit ALU Design
  Designed and implemented a simple Arithmetic and Logic Unit (ALU) to perform fundamental logical operations for testing and validation.

LINKS

Github: **anubhav666**
LinkedIn: **Anubhav Dutta**