PRANJALI MADUR

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SUMMARY

Passionate and detail-oriented Embedded Software Engineer seeking a great start. Looking for an opportunity to put my technical knowledge and make a substantial contribution by solving real world complex problems. I have a strong technical background essential to this role, including C, C++, and Assembly language.

EDUCATION

Master of Science, Electrical Engineering *Aug 2018 - May 2020*
University of Texas, Arlington
Bachelor of Engineering, Electronics and Telecommunication *Aug 2013 - May 2016*
MKSSSs Cummins College of Engineering for Women

SKILLS

Programming Languages: C, C++, Assembly, Python
Development Environments: MS Visual Studio, CCS, Keil
Peripherals: UART, I2C, SPI, CAN, GPIO, ADCs
Hardware: PCB designing, Circuit debugging, Schematics, PCB soldering, Oscilloscope
Tools: GIT, BASH, Embedded Linux
Systems: Linux/Unix, Windows
Soft Skills: Team player, Willingness to learn, Problem-solving, Motivated

EXPERIENCE

Manufacturing Engineering Intern, PROCEPT BioRobotics *Sep 2020 - Dec 2020*
- Performed assembling and functional inspection process on a test fixture and testing different sub-assemblies on the Manufacturing floor.
- Developed a Rework manual for various finished goods to improve the rework process time and increase production rate by 75% using DFM, pFMEA, dFMEA and rework steps.
- Improved the manufacturing process instructions and quality inspection documents for ease of understanding of the operators.

Software Engineer, Atos India Pvt LTD *Feb 2017 - Jul 2018*
- Performed migration of production servers from a customer environment to cloud platform(AWS/Azure/DCiaBox) using Platespin migration tool.
- Lead a team of 15 people and delivered the project ahead of schedule by delegating the tasks.
- Developed a web application using Servlets, Database and web development languages.

PROJECTS

Real Time Operating System for ARM Cortex M4
- Audited the course, real time bluetooth networks from UT Austin and implemented a real time operating system to create a fitness tracking device on the TM4C123GH6PM using BOOSTXL-EDUMKII and CC2650.
- Created Real Time OS for ARM Cortex M4 using Embedded C supporting cooperative and pre-emptive task scheduling and inter-task communication.
- Supported system calls such as yield, sleep, suspend along with semaphore functionalities including priority scheduling and priority inversion techniques.

Low Cost Programmable Pulse Generator with Automatic Level Control
- Implemented a TM4C123GH6PM based embedded project in Code Composer Studio IDE using Embedded C.
- Designed a signal generator circuit generating various waveforms with controllable amplitude, frequency and offset.
- Controlled number of cycles of the sine waveform and duty cycle of the square waveform.
- Command line interface capable of controlling the system and providing measurements data back to the user(UART interface).

SDRAM Controller design using Processor 80386DX
- Designed SDRAM controller that allows SDRAM memory(MT48LC8M8A2) to interface with Microprocessor 80386DX having asynchronous memory support.
- Determined Read and Write Cycles for different Burst lengths(2,4,8) for the SDRAM.

Automatic Destination Vehicle for Transportation of Lab Equipment in College
- Implemented Atmel AT89s52 microcontroller project using Embedded C in Keil ţvision4 IDE.
- Developed a system carrying payload using RFID reader, GSM for communication and Line Sensors for vehicle movement.
- Built a prototype system that does the job without any delay specially when peons are not available in college.