Praveen Prabhakaran

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Summary

Seeking a Full time position in the field of Embedded Software/Firmware Development, Device Driver Development and Software Development with 2+ years of experience in Object Oriented programing.

EDUCATION

M.S. in Computer Engineering   **Expected December 2016**

San Jose State University, USA

Course work: System Software, Advanced Computer Design, Embedded Hardware Design, Embedded Systems Applications, Embedded Software, Embedded Wireless Architecture, Computer Architecture, Machine Learning

B.E. in Computer Science and Engineering   **June 2012**

Visvesvaraya Technological University, India

TECHNICAL SKILLS

Programming Languages: C, C++, JAVA, Python (beginner), JSP, JavaScript

Database: MySQL, Oracle 10g

Protocols/Drivers: UART, SPI, I2C2, RS 232

DEV. Platform: ARM 11, ARM Cortex-M3, LPCXpresso

Tools: Tibco Business works 5.11, Tibco Business events, Visual Studio, Android Studio, Eclipse, Git, TortoiseSVN, OpenCV, and OpenGL

Skills: MVC Design Pattern, Data structures and Object Oriented Programming, Operating Systems, Linux Device Driver Development

WORK EXPERIENCE

Teaching Assistance (Real-Time Embedded System Co-Design) - San Jose State University, San Jose, CA   **SEPT 2016 – PRESENT**

- Helped students with technical challenges in course curriculum and their projects.
- Performed evaluations and grading for students in assignments.

Programmer Analyst - Cognizant Technological Solution, Bangalore, India   **NOV 2012 – OCT 2014**

- Gathered, analyzed and documented the project requirements specifications based on *"Agile" software development (SCRUM).*
- Designed and developed the integration solution using TIBCO EMS, BW and several packaged adapters and carried out the complete load balancing.
- Deployed the Tibco Processes and Services across different Unix Environments.

PROJECTS

Swarm Robots   **JAN 2015 – MAY 2015**

Swarm robots deals with coordination of multiple robots. The position of each robot is determined and monitored by an overlooking camera, camera is used as GPS. Each robot will be in search of a target. Upon target detection, robot which finds the target will summon other robots to come towards the target.

Software: FreeRTOS, C, C++, OpenCV.   **Hardware**: LPC1758 (ARM Cortex-M3)

URL: http://www.socialledge.com/sjsu/index.php?title=S15:_Swarm_Robots

Linux Kernel and Device Driver Development   **JAN 2015 – MAY 2015**

The objective of the project is to develop a PID control algorithm to control PWM frequency of a stepper motor and control the direction and rotation speed of the motor.

Software: friendlyarm mini6410 Linux   **Hardware: ARM 11 board**

Self-Driving Autonomous Car   **SEPT 2015 – DEC 2015**

The objective of the project is to create a self-driving autonomous car in a 10 person team. The car utilizes several components and sensors in order to get from Point A to Point B. Implementation of the car involves multiple SJONE processor boards using FreeRTOS to communicate with each other via CAN bus.

Software: FreeRTOS, C, C++, Android Studio   **Hardware: LPC1758 (ARM Cortex-M3)**

URL: http://www.socialledge.com/sjsu/index.php?title=F15:_Fury

Smart Workout Gloves   **SEPT 2015 – DEC 2015**

The objective of the project is to create a smart gloves which will have all the advantages of a fitness band as well as combining the traditional workout logging by counting the number the reps and logging it on to a smart phone.

Software: FreeRTOS, C, C++, Android Studio   **Hardware: LPC1758 (ARM Cortex-M3)**

URL: https://www.youtube.com/watch?v=qKTbngcGEhs

Edge Computing Platform for IOT   **(On Going)**

Design of a common embedded platform with Docker containers to support multiple application.

Software: Python, Beaglebone Black, AWS, RESTFul