Contact

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www.linkedin.com/in/krunalwave
(LinkedIn)
krunalwave.github.io (Portfolio)

Top Skills

Embedded C, RTOS, Linux

C - C++, Python, JavaScript

Education

M.Tech in Electronics and Communication
GTU, Ahmedabad (2012 - 2014)

B.Tech in Electronics and Communication
GTU, Ahmedabad (2008 - 2012)

Certifications

Advance Diploma in Embedded System

Publications

Implementation of Embedded ARM9
Platform using Qt and OpenCV for Human
Upper Body Detection

Patents

An improved monitoring system using
RFID and GSM for educational institutes,
automotive industries, commercial
organizations and financial transactions

Krunal Patel

Embedded Software Developer at Ignitarium Technology Pvt. Ltd.
Bengaluru, Karnataka, India

Summary

Embedded Software Developer with more than 2+ years of development
experience with strong academics.
- Hands on experience on 32-bit ARM® Cortex®-M Series MCUs like TI
  CC2640 SimpleLink, NXP MK60DN256VLQ10 Freescale Kinetis MCUs.
- Worked on FPGA as well as STM32F4 - DISC1, Raspberry Pi3, ESP8266
- Efficient with respect to programming in C, Embedded C, Python and
  Basic knowledge of Linux Internals.
- Understanding of Drivers API, insertion and registration of drivers into
  the kernel.
- Experience on FreeRTOS

- Experience on SPI and I2C interfaces.
- Familiar with Agile method of Software Development Life Cycle.
- Experience with Git, WinCVS.

Experience

Ignitarium Technology Solutions Pvt Ltd
Embedded Software Developer
January 2017 - Present
Bengaluru, Karnataka, India

Rex-Tone Industries Ltd
Project Engineer
July 2015 - May 2016
Vadodara, Gujarat, India

Clients Project

Saankhya Labs Pvt. Ltd.
Sep 2018 – Present
Bengaluru, Karnataka, India

Design and Develop HAL for Universal TV Demodulator System on Chip (SOC)

- ATSC – Firmware Development for Software Defined Radio for 3rd Gen Broadcast IC's Universal TV Demodulator
- Develop Hardware Abstraction Layer (HAL) components as well as control Software to manage various HW Block (DSPs) functions in Software Defined Radio.

Languages and Tool: C, Assembly and TCL script | Cygwin, Eclipse

Bharat Electronics
April 2018 – Aug 2018
Bengaluru, Karnataka, India

Integrated Traffic Management System

- Designed and Developed Application based on 32-bit ARM® Cortex®-M4 NXP Freescale Kinetis MCU
- Developed Driver APIs to communicate different peripherals.
- Designed Software RTC to overcome timing conflict
- Responsible for integrating the Peripherals to MCU
- Integrating Alpha Numeric Countdown Wireless Timers to Host Controller
- Centralized Failure Monitoring and Control Facility from Central Traffic Management Center

Languages and Tool: C, C++ | Kinetis Design Studio and MCUXpresso

Team Indus - MoonShot
July 2017 – April 2018
Bengaluru, Karnataka, India

GLXP Moon Mission – Rover to Moon

- Space Craft Data Handling and Control
- Developed Python module for Handling Telemetry Packets from Spacecraft Subsystem
- Designed CSTOL procedures to monitor and control of Spacecraft TM/TC
- Developed Real Time Video Streaming applications for Moon Cast at lower data-rate

Languages and Tool: C, Python, CSTOL and JavaScript | CentOS

In-house Projects

St. John's Research Institute
Feb 2017 – July 2017
Bengaluru, Karnataka, India

Wearable for Health Care Monitoring Application

- Developed and Designed RTOS Application based on 32-bit ARM® Cortex®-M Series TI's CC2640 SimpleLink Wireless MCU (BLE) Custom Device
- Developed APIs for MCU device Driver
- Responsible for integrating the Peripherals to MCU, Receiver data from sensors including Thermistor, IMU, HR, Touch and sending over GATT

Languages and Tool: C, Python | MPU9250, CC2650 | Code Composer Studio

A.T. INKS

Project Engineer
AT inks (Rex-Tone Industries)
Jul 2015 – May 2016

Color based Production distribution system

- Designed a Real Time IoT application based on Image Processing and deployed it along with PLC system
- Designed an algorithm that can Detect color and sending higher level commands to PLC unit

Languages and Tool: C, Python | Raspberry Pi3 | PLC