

MANAJ MOHAPATRA

Software Engineer

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EXPERIENCE

Software Engineer

IMH Team, Texas Instruments India

📅 Aug 2016 – Present 📍 Bangalore, India

- Micro-driver development for light sensors
 - Software and Hardware
 - * Programming Language: C
 - * Tools: Intel FDK, GCC
 - * Device: Ambient Light Sensor
 - Motivation
 - * Understand system standards and work with ODMs to develop device driver that enables sensor communication with processor
 - * The sensor can operate in polling mode that updates value after fixed time period or interrupt mode where sensor generates interrupt according to sensitivity
 - * Development involves calibration, testing, certification, release and customer support
- White balance correction using light sensor
 - Software and Hardware
 - * Programming Language: Python
 - * Device: Color Sensor
 - Motivation
 - * Application requires CCT value measured by color sensor
 - * Based on CCT value, the tool auto-corrects white balance of live video from web camera using windows API
- Lead developer of lab automation tool
 - Software
 - * Programming Language: Python
 - Applications
 - * The tool is used by more than 250 people for wide range of devices from different product lines
 - * It is used for device configuration, data capture, visualization, analysis and logging
 - * Tool can control instruments and interfacing devices
 - * Ecosystem provides standardised way of creating device and instrument controller and auto-generates GUI
 - * User can build custom GUIs by drawing or copying widgets
 - * It can be compiled to executable that contains all required libraries, project related files and drivers that can be shared as an installer to customer
- Register mapping tool
 - Software
 - * Programming Language: Python
 - Applications
 - * Tool captures device information during design cycle in an efficient data structure
 - * Provides an ecosystem that allows to create, modify and navigate stored information. It can generate different views where data can be hidden or modified
 - * Provides APIs to export information in different formats like RTL, C, C++, IP-XACT and HTML etc

EDUCATION

Master of Technology

VLSI Design & Embedded Systems

National Institute of Technology, Rourkela

📅 May 2015 – May 2016

Bachelor of Technology

Electronics & Instrumentation

National Institute of Technology, Rourkela

📅 Aug 2011 – May 2015

AREA OF INTEREST

- Embedded Systems
- Automation and application development

SOFTWARE

C, Python, Git, Intel FDK ●●●●●

Markdown, Qt, C++ ●●●●●

HARDWARE

OPT3004, 3007, 4001, 4048 ●●●●●

FTDI devices, Intel UPX ●●●●●

AWARDS

- 🏆 **Gold Recognition 2019**
Significant reduction in device bring up time by combining multiple device communications to single transaction
- 🏆 **Automation Champion 2017-2018**
Development of custom GUI platform that enables draw and copy widgets for in-house automation tool
- 🏆 **Silver Recognition 2017**
Identify gaps and develop critical features that improved productivity

ARTICLES

- Bundle Large Python Application using PyInstaller
- Create Installer of Python Program for Windows OS using Inno Setup