

Pratik Panda

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OBJECTIVE Motivated by purpose and driven by passion, I am a creative person seeking challenging opportunities in the electronics industry to help create and develop technology that changes lives every day.

EDUCATION **Bachelor of Technology**
National Institute of Technology Silchar, Assam
(Electronics and Communication Engineering)
2013 – 2017
CGPA: 7.4 (first 4 semesters)

High School
(Science Stream)
2010 – 2012
CBSE SSCE: 91.6%

Secondary School
(Science Stream)
2010
CBSE AISSE: CGPA 10.0

EXPERIENCE



Summer Intern
Espressif Systems
Shanghai, China

(summer of 2016)

Worked as a technical documentation consultant for the semiconductor company providing solutions for low power IoT applications. Documented the RTOS based SDK for the popular ESP8266 Wi-Fi SoC. Other responsibilities included porting, debugging and optimizing firmware for the new ESP32 family.



Senior Writer
Dreamstime LLC
Brentwood, United States

(March 2013 – present)

Produced creative content and articles on demand for many client websites. The categories of content ranges from how-to articles to technical articles on topics such as astrophotography and power optimization in imaging systems.



Media and strategist
Children of Hope India
(Registered NGO)
Rongpur, Assam, India

(November 2014 – present)

Took a step further to discover more, uncover stories that need telling and to bring up voices that deserve to be heard. My contributions to the NGO consist mainly of designing content, producing media content and assisting in planning out publicity operations.

PROJECTS

High speed FAT16/32 library port for Philips LPC21xx

- Full SDIO version 2.0 compliance
- Over 12 mbps burst mode transfer (higher than leading open source ports)
- Added support for SDHC cards
- Supports FAT16 and FAT32 (powered by open source FatFs)

Ultra-low footprint graphics library for 16/32-bit MCUs

- Simple windows/message boxes for neat UI
- Unique anti-aliased font set for low-res displays
- SD card access enabled (FAT 32)

Keyboard controlled 6 DoF robotic arm

- Servo motors based arm for controlled movement
- Keyboard based precision control
- Programmable actions recorder (for repeated steps)

USB HID device implementation

- USB 2.0 compliant Human Interface Device (mouse/keyboard/joystick)
- No drivers required (boot interface device configuration)
- RTOS friendly

Visual Studio based hardware control

- Parallel port or USB 2.0 compliant hardware interface
- High speed image processing (external webcam)
- Control of external hardware through port interface (Windows API)

CURRENT PROJECTS

Book

The Internet of Things: Designing Connected Products

The book is intended for beginners with basic knowledge of microcontroller programming. The entire workflow of creating wired/wireless connected products is to be explored, beginning from communication protocols and advancing all the way to data security and integrity in wireless systems.

What makes this book different:

- Example codes and screenshots for assistance
- Complete home automation system implementation as demo project
- Top 10 design challenges and potential solutions
- Focus on user experience and UI design
- Advanced sections - programing the ESP8266 wireless SoC powered by ARM7

SmartWatch for interactive home automation

- To be designed around an economical ARM920T SoC (180 MHz core)
- 1.4" color TFT LCD (powered by 4D Systems graphics processor)
- IoT (Internet of Things) enabled
- Gesture based control

SKILLS

I believe I am good at:

- Embedded hardware design and optimization
- Firmware for embedded (mainly in C language)
- Creating and managing technical documentation
- Computer application design (external HW interfacing)
- Photography
- Marketing and publicity strategies
- Writing and creative content design
- Content licensing (legal aspects)
- Website design (Wordpress CMS)
- Volunteering activities