

INDERPREET SINGH

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Skilled Engineering Professional with a Masters in Engineering and 8+ years of experience in designing, testing and deploying Embedded High-Performance Firmware and Hardware. Effective in digital and analog electronic systems design with strong core fundamentals. Proven track record with CAD tools and simulation tools for electronic system design validation with a background in teaching and training.

EXPERIENCE

FEBRUARY 2017 – CURRENT

CONTRIBUTOR-AT-LARGE, HACKADAY.COM

Content Writer, contributing detailed tutorials and short original content on recent technologies

JULY 2012 – JULY 2018

CHIEF DESIGN ENGINEER, RAJDEEP INFO TECHNO PVT. LTD, INDIA

- Embedded Solutions Architect: Responsible for converting user requirements and designing hardware and firmware including component selection for new products.
- Team & Project Management: Training and mentoring technical teams for new challenges.
- Firmware: Writing mission critical firmware and protocols for microcontrollers and Linux.
- Software: Writing test scripts in Python for integrating hardware with computers and networks.
- Communication: Point of contact between multiple stakeholders including Upper Management and Software and Hardware Teams for developing solutions.

APRIL 2009 – JUNE 2010

TEAM LEAD ELECTRONICS, RAJDEEP INFO TECHNO PVT. LTD, INDIA

- Technical Lead: Responsible for coordinating and training teams for Embedded Dev. Group.
- Product Realization from Design: Executing projects within scope, scheduling and budgeting
- Firmware Development: Writing and overseeing the testing & validation of Firmware for mission critical control systems.
- Product Support: Providing site assistance and improvement in existing solutions and quality assurance.

JANUARY 2008 – MARCH 2009

DEVELOPMENT ENGINEER -ELECTRONICS, RAJDEEP INFO TECHNO PVT. LTD, INDIA

- System on Chip Design: Designing SOC systems in Verilog HDL and C++ using Altera Quartus II and NIOS II Softcore Processor
- Board Bring-up: Designing and Testing 2- and 4-layer PCBs for control and automation products
- Product documentation for relevant projects.

JULY 2006 – JANUARY 2008

RESEARCH ASSISTANT, INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, INDIA

- Delivering course curriculum in classroom as well as lab sessions for ASIC design.

- Course Material audits and Lab session design.
- Evaluating practical exams for Digital design courses.

EDUCATION

JULY 2010 - JUNE 2012

MASTERS OF TECHNOLOGY – COMMUNICATION SYSTEMS, GURU NANAK DEV UNIVERSITY, INDIA

- CPGA 8.4/10 (Equivalent to 74.3%)
- Credentials Assessed by World Education Services, Canada

JULY 2002 - JUNE 2006

BACHELOR OF TECHNOLOGY – ELECTRONICS AND COMMUNICATION ENGINEERING, PUNJAB TECHNICAL UNIVERSITY, INDIA

- 77.71% (Equivalent to 2.8 4.0GPA)
- Credentials Assessed by World Education Services, Canada

SKILLS

PROGRAMMING LANGUAGES

Embedded C/C++, C++14, Python 3, MATLAB, NodeJS, VerilogHDL, BASH Scripting, HTML/CSS/JS, OpenCV, TensorFlow

HARDWARE

ARM Cortex M0, M4, AVR, MSP430, Intel x86 - IoT 2020, SiLabs 8051, TI CC3200, ESP8266, Raspberry Pi, Hardware Acceleration

PROTOCOLS

I2C, SPI, UART, TCP/IP, MQTT, Bluetooth, RF Communication, Custom Protocol Stacks for POSIX and Embedded Systems

BOARD BRING-UP AND SIMULATION

Autodesk Eagle, KiCAD, Cadence OrCAD, LT Spice, Autodesk Fusion 360(3D Modelling)

SOFTWARE TOOLS AND OS

SPICE, Linux(Kernel Modules and drivers, threads, Make), Git(Github and Gitlab), IntelliJ IDEA, OpenCV, Spring Boot, Eclipse, Visual Studio Code, Microsoft Office, Android Studio, LabView, Jira Software, Asana, Slack, Google Suite, Adobe Photoshop

CERTIFICATIONS

IELTS, GENERAL (MAY, 2017)

Listening 8.5, Reading 8.5, Writing 7.5, Speaking 8.5