
INDERPREET SINGH

Embedded System Engineer & Integrator

LINKS

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CONTACT

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EDUCATION

Canadian Equivalency -
Masters Degree

Pre-PhD Course,
Guru Nanak Dev University,
India(2015)

M.Tech. Electronic
Systems, Guru Nanak Dev
University, India (2012)

B.Tech. Electronics &
Communications, Punjab
Technical University, India
(2006)

LANGUAGES

- English **IELTS**
(8.5/8.5/7.5/8.5)
- Hindi, Punjabi

PUBLICATIONS

- Contributor to Creative
Projects with Raspberry
Pi(419725009)
- Contributor-at-large to
HackaDay.com

PROFESSIONAL STATEMENT

Electronics Systems Engineer with over 8 years of experience in designing industrial automation and control products and hardware-software integration. Creative thinker skilled in managing technical requirements and well versed in rapid product design from problem to production. Skilled at creating and mentoring teams and has excellent written and verbal communication skills with experience with Agile methodologies. Contributing writer for hackaday.com.

ACCOMPLISHMENTS

- Reduced production costs for existing products by up to 80% by redesigning hardware for efficient production and site performance.
- Added over a dozen integration products used in Toll Automation Systems, sold as commercial solutions.
- Setup an Agile team dedicated to hardware development.
- Wrote the manual for Scrum and ISO workflows customised to hardware product design and internal process guidelines.
- Was sponsored for a two year post-graduate program by the management

EXPERIENCE

Rajdeep Info Techno Pvt. Ltd, India

Chief Design Engineer

2012-2014 & 2015-2018

- Embedded Systems Architect and Project Manager: Scrum Product Owner Responsible for converting problem statements into cost effective solution and Backlog Planning while adhering to time and cost budgets.
- Communication: Responsible for collaborating with multiple stakeholders including Upper Management for Budgeting and Software Teams for Integration.
- Technical Representation: Lead client interactions to interpret system requirements for new products and present/defend existing solutions.
- Leadership: Lead the teams to produce multiple products as well as improve quality of work and efficiency.

Team Lead - Electronics

2009-2010

- Technical Lead: Responsible for Team co-ordination for Embedded Development Group
 - Product realisation from Design document: Execute projects within scope, schedule and budget constraints.
 - Board Bringup: Lead Printed Circuit Board design, assembly, testing, validation for Component Selection and Layout for 2 and 4 layer boards.
 - Design Reviews & Documentation: Record Test and Validation results and conduct a formal review of all tasks on a regular basis.
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CERTIFICATIONS

- Introducing Spring Boot - UdeMy(2018)

- Firmware Development: Write and oversee the testing & validation of Firmware for mission critical control systems.
- Product Support: Responsible for providing site assistance and improvement in existing solutions and quality assurance.

Development Engineer - Electronics

2008 - 2009

- SOC Design: Designed SOC systems in VerilogHDL and C++ using Altera Quartus II and NIOS II Softcore Processor
- Board Bringup: Designed and Tested 2 and 4 layer PCBs for control and automation products
- Product documentation for relevant projects

International Institute Of Information Technology

Research Associate - VLSI

2006-2008

- Cadence RTL Compiler and Encounter Lab preparation and delivery
- Course Material audits

SKILLS

Programming Languages

Embedded C/C++ , Python, MATLAB, JAVA, NodeJS, HTML/CSS/JS, VerilogHDL, BASH Scripting

Board Bring up/Prototyping/3D Printing

Autodesk Eagle, KiCAD, Cadence OrCAD, LT Spice, Autodesk Fusion 360, Adobe Photoshop.

Hardware

ARM Cortex M, AVR, MSP430, Intel x86 - IoT 2020, SiLabs 8051, TI CC3200, ESP8266, Raspberry Pi

Protocols

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

Software Tools and OS

Spring Boot, Eclipse, IntelliJ, Visual Studio Code, Microsoft Office, Android Studio, NodeRed, LabView, Linux(Kernel Modules and drivers), Git(Github and Gitlab), Jira Software, Asana, Trello, Slack, Google Suite, Evernote(GTD)

REFERENCES

- Yogesh Dhongade, Director, Rajdeep Info Techo Pvt Ltd. Pune (yogeshd@rajdeepgroup.com)
 - Doug Wong, Director of Electronics Systems Engineering, Med-End, Ottawa, Canada, (jdewong@bell.net)
 - Dr. Maninder Lal Singh, Deptt. Of Electronics Engineering, Guru Nanak Dev University, Amritsar (mksingh7@gmail.com)
 - Mike Szczys, Editor-In-Chief, Hackaday.com, (mike@hackaday.com)
 - Dr. Subrata Ghoshal, Professor, ISquareIT, Pune (subrataghoshal@gmail.com)
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