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| **INDERPREET SINGH** | Brampton, Ontario, +1 416 543 0944  Inderpreet.v1@gmail.com (linkedin.com/in/InderpreetS) |

**Profile**

Skilled Engineering Professional with a Masters in Engineering and 8+ years of experience in designing, testing and deploying Embedded Firmware and Hardware. Expertise in rapid prototyping with 8-bit and 32-bit microcontrollers and interfacing. Strong technical and methodological aptitude and background in hardware bring-up and integration. Team player with excellent written and verbal communication skills with the ability to reduce development costs and within scheduled timelines.

**Highlights**

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| * Embedded Firmware & Hardware * Rapid Prototyping and Cost Reduction * Project Management * Software Integration | * Agile/Scrum * Professional Writing Skills * Internet Of Things and Network Protocols * Requirement Analysis |

**Skills**

**Programming Languages**

Embedded C/C++, C++11, Python, NodeJS, VerilogHDL, BASH Scripting, HTML/CSS/JS

**Board Bring-up and Simulation**

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

**Hardware**

ARM Cortex M0, M3, M4, 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**

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

**Professional Experience**

**Hack-A-Day.com 2017 – Current**

*A Leading Online Technology Magazine*

**Contributor-At-Large**

* Content Writing: Writing Detailed Original Content such as tutorials as well as short articles.

**Rajdeep Info Techno Pvt. Ltd, India**

*One of the largest Tolling solutions and construction companies in India*

***Chief Design Engineer* July, *2012 to June, 2014 & July, 2015 to July, 2018***

* Embedded Systems Architect: Responsible for converting user requirements and designing hardware and firmware including component selection for new products.
* Board Bring-up: Leading Printed Circuit Board design, assembly, testing, and validation for Components and Layouts for 2 and 4-layer boards.
* 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.
* Technical Representation: Leading client interactions to interpret system requirements for new products and presenting / defending existing solutions.
* Team and Project Management: Generating Cost and Time budget estimates.

***Team Lead - Electronics*** **April *2009 to June 2010***

* Technical Lead: Responsible for co-ordinating the Team for Embedded Development Group
* Product Realisation from Design: Executing projects within scope, scheduling and budgeting
* Board Bring-up: Designing and finalizing schematics as well as layouts for multi-layer boards. Design Reviews & Documentation: Recording Test and Validation results and conducting formal reviews of all tasks on a regular basis.
* 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.

***Development Engineer – Electronics* January, *2008 to March 2009***

* System On Chip Design: Designing SOC systems in VerilogHDL 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.

**International Institute Of Information Technology**

***Research Associate – VLSI 2006-2008***

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

**Education**

**Master of Technology –** Communication Systems ***2010-2012***

*Guru Nanak Dev University, India*

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

**Bachelor Of Technology** – Electronics and Communication Engineering***2002-2006***

*Punjab Technical University, India*

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

**Certifications**

**IELTS – General May – 2017**

* Listening 8.5, Reading 8.5, Writing 7.5, Speaking 8.5

**Projects**

* Project Documentation is Available Online at https://inderpreet.github.io/index5.html