SHANJIT SINGH JAJMANN

Contact Information

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Education

University of Delhi, New Delhi(*August 2009 - Present*)
Netaji Subhas Institute of Technology (NSIT), formerly Delhi Institute of Technology (DIT)
B.E., Electronics and Communication Engineering, 78% (WES GPA 3.95/4.00)

Kendriya Vidyalaya, Sector-8, R.K Puram, New Delhi(*2009*)
All India Senior School Certificate Examination (Grade 12), CBSE, 91.6%
Received the Smt. Shanta Major Nanjundiah Award for Academic Excellence (2nd overall in a batch of 120 students)

Kendriya Vidyalaya, Hebbal, Bangalore(*2007*)
All India Secondary School Examination (Grade 10), CBSE, 91.0%
Received Distinction for Highest Maths and Science aggregate

Relevant Courses

Analog and Digital Electronics, Digital Circuits and Systems, Network Analysis, Linear Integrated Circuits, Computer System Architecture, Microprocessors, C Programming Lab, Introduction to Data Structures and Algorithms Lab, Introduction to Communication Theory and Digital Communications.

Skill Set

EDA Tools: Xilinx, PSPICE, Eagle, VHDL programming
Programming: C/C++, Java, Python, MATLAB, Shell Scripting, Javascript, Node.js, Web and Android App developer

Academic Honours, Publications Workshops

- 'Getting Started with the Stellaris Guru Evaluation Kit, Stellaris ARM Cortex-M3 Lab Manual', Book, Dhananjay V. Gadre, Rohit Dureja, Shanjit Singh Jajmann, Universities Press (India), 2012 (Under Publication)
- Awarded the Subroto Memorial Scholarship, Indian Air Force for Academic Excellence for four consecutive years (*2009-13*)
- Awarded the Ramanujam Award - Above 95% in Mathematics in University Examinations (*2009-10*)
- Ranked 22nd in the Regional Mathematics Olympiad from over 20,000 participants held at Bangalore (*2007-08*)
- Conducted a Workshop on ARM Cortex-M3 micro-controllers at the Indian Institute of Technology, Banaras Hindu University, ARM University Program (*April 2012*)
- Conducted the Advanced Faculty Training Workshop, 2012 at the Centre for Development of Advanced Computing (CDAC), Hyderabad with Texas Instruments University Program (*June 2012*)

Academic Projects

Hardware/Software Co-design: ARM micro-controller with FPGAs, Undergraduate B.E. Project (*September 2012 - Present*)
Project Advisor: Associate Professor D.V. Gadre

- Project Objective: To develop a standalone system using reconfigurable hardware alongside the ARM Cortex-M3 micro-controller for improved performance.

Multilingual Cloud based Health Monitoring Manager
Texas Instruments Analog Design Contest 2011 (*July 2011 - Feb 2012*)
Texas Instruments Centre for Embedded Product Design, NSIT, New Delhi

- Developed a stand-alone health logging system using the Texas Instruments based LM3S811 ARM Cortex-M3 micro-controller.
- Hacked a generic physical weighing scale and developed analog circuitry for extracting the values from the four load cells to the ADC of the micro-controller.

- Conceptualized and developed a custom Android and Web application using the Google App Engine for seamless data transfer and real-time tracking of values.

Mini-Projects on ST Microelectronics and NXP Semiconductors based ARM Cortex-M3 and ARM7 micro-controllers
Texas Instruments Centre for Embedded Product Design, NSIT (*March 2011 - November 2011*)

- Designed and fabricated Printed Circuit Board (PCB) schematics and gerber files using 'Eagle' and a laser printer with ferric chloride for etching.
- Integrated GNU based toolchains with Eclipse for setting up development environments for these micro-controllers.

Experience

Texas Instruments (India) Private Limited, New Delhi
Research Assistant (*December 2011 - Present*)
Advisors: Dr. C.P. Ravikumar, Director of University Relations (Technical), Texas Instruments, India and Associate Professor D.V. Gadre, Faculty, NSIT, University of Delhi

- Developed Hardware and Software Design for custom-made circuit boards using the ARM based Cortex-M3 micro-controllers LM3S608/ LM3S811/LM3S9B92.
- Set up the Open Source software environment using GNU based toolchains, Eclipse and proprietary Texas Instruments software.
- Integrated the Debugging Environment (JTAG/Serial Wire Debug interfaces) for ARM micro-controllers using Eclipse with the Open-Souce On-Chip-Debugger. Used Quick EMUlator (QEMU) for Software Emulation.

Software for Education, Entertainment and Training Activities (SEETA), New Delhi
Product Engineer & Software Developer (*December 2010 - November 2011*)
Advisor: Manusheel Gupta, Founder SEETA

- Lead Developer of a Javascript based spreadsheet application on the Android platform.
- Used the WebViews design methodology and external Google APIs for implementing standard XLS format conversions.
- Implemented the load-save functionality and used Java-Javascript interfaces with JSON format for parsing and exchanging data.
- Conceptualized the research, design and engineering of various mobile and desktop applications.

Sugarlabs - learning software for children
Active Patch Committer, *August 2010 - December 2010*

- Assisted the in-house Sugar Development team in developing the Sugar Desktop Environment for the One Laptop Per Child (OLPC) project. Committed a number of important patches to the Sugar Ecosystem.
- Learned about various stages in code development cycle, use of version control systems, linux software packaging and distribution.

EC-220 Practical Training Course, NSIT
Teaching Assistant (*December 2011 - March 2012*)
Advisor: Associate Professor D.V. Gadre

- Taught and demonstrated hardware designing, fabrication and soldering to students.
- Assisted the Advisor in managing a class of 150 students and ensured that each student received personal attention.

Extra-Curricular Activities Other Interests

- Member, Rotaract Club, NSIT Chapter and have organised various sports and annual meets for underpriviledged children.(*2009-2010*)
- Organised various technical event including Innovision - the Annual Technical Fest, Shell Scripting Challenges and Online Quiz Hunts.(*2009-2010*)
- Keenly follow developments in open source software and hardware technologies, especially in the Arduino and Android world.
- Enjoy quizzing, badminton, hiking and listening to hindi music.