

JISHNU KASHYAP DAVE

EXPERIENCE

- Software Engineer at Motorola – iDEN DAP (Dispatch Application Processor) CIT (Component Integration Testing) team; August 2010-Present
- (*UG Major*) ASIC Trainee at eInfochips – “Coding techniques for Software Defined Radio” – Worked on RTL design, synthesis, simulation, and FPGA-based implementation of SDR supporting coding techniques for IEEE 802.11a & IEEE 802.16a; “Coding guideline verification tool” – Developed the tool in Perl/Tk for verifying coding guidelines of C, C++, Verilog & SystemVerilog; January 2010-May 2010 (team of 2)
- (*UG Minor*) UG Student at Nirma University - “Design & performance evaluation of DSP algorithms on FPGA-based multi-processor systems” - Design of a multi-MicroBlaze system on Xilinx Virtex-5 FPGA, benchmarking it with EEMBC CoreMark, implementation of DSP algorithms like radix-2 FFT, profiling & optimizing the application & performance evaluation in terms of clock cycles, speedup, resource utilization; June 2009-October 2009 (team of 2)

EDUCATION

- B. Tech. in Electronics & Communication (EC) Engineering at Nirma University, Ahmedabad with CPI 8.32/10.00

RESEARCH PUBLICATION

- Jishnu Dave, Parth Lakhiya & Prof. Nagendra Gajjar, “Design & performance evaluation of FFT algorithms on FPGA-based multi-processor systems”, International Conference on Signals, Systems & Automation (ICSSA) at G. H. Patel College of Engineering & Technology (GCET), Vallabh Vidyanagar; December 2009

SKILL SET

- Languages: C, C++, Unix, Bash scripting, Perl/Tk, Visual Basic, 8086 Assembly, MiniMIPS, VHDL, Verilog HDL
- Embedded & VLSI tools: MASM, Keil uVision, BASCOM-AVR, WinAVR, AVR Studio, Code Vision-AVR, IAR Embedded Workbench for ARM Kickstart, Dsch, Microwind, Altera Quartus, Xilinx ISE (XPS), Xilinx EDK
- Hardware platforms: 8086, 8051, AVR ATmega family, ARM LPC2148, MAX II CPLD, Spartan-3 FPGA, Virtex-5 FPGA
- Applications: MATLAB, Simulink
- Circuit design, simulation, layout: Orcad Family (Pspice), Multisim, Circuit Maker, Eagle, ExpressPCB
- Conducted workshops on: Autonomous Robotics
- Attended workshops/seminars on: Gen-Next Broadcasting, VLSI Testing, ARM Processors, uCOS-II, VB, Robotics, Embedded Systems, Public Speaking, Vedic Mathematics

PROJECTS

- “ROBOCON India 2010” – Represented Nirma University in the capacity of Team Leader. Developed robots to build models of the three Giza Pyramids block by block in sequence without using any binding material; November 2009-March 2010 (team of 16)
- “ROBOCON India 2009” – Represented Nirma University. Developed a system of robots

programmed for qualities such as cooperation above & beyond the conventional speed, power & precision; November 2008-March 2009 (team of 17)

- “G.O.A.L.” - A robot that plays soccer against another opponent robot based on image processing; December 2008-January 2009 (team of 3)
- “Micromouse” - A robot that reaches the center of an unknown maze in the shortest possible time; December 2008-January 2009 (team of 3)
- “M-it” - A generic SMS-based inquiry/complaint management system for municipal corporations, dam control systems as well as for commercial purposes; September 2008-October 2008 (team of 2)
- “Asia-Pacific ROBOCON 2008” – Represented INDIA & got the Mabuchi Motor Award. Developed robots for fast, accurate pick & place operations in a way similar to human pyramids formed in Janmashtami; May 2008-August 2008 (team of 7)
- “Chessie 2.0” - A chess playing software based on Artificial Intelligence (AI) algorithms; January 2008-March 2008 (team of 3)

ACHIEVEMENTS

- Elected The Secretary, IEEE Student Branch, Nirma University for the year 2009 - Organizing GBMs, fostering quality events, increasing membership base; January 2009
- First in Hardware Project competition & Software Project competition at TechnOdyssey by IEEE student branch, Nirma University; September 2008
- First in Innovation – Hardware, a hardware project competition under Vidyut Adbhutam by EE Students’ Association (EESA), Nirma University; March 2008
- Second in Circuitect (circuit designing), Codessey (software project) & C Thru It (C debugging) under Prevoyance by EC Organization (ECO), Nirma University; March 2008
- Was a finalist (Rank 13) at Codathlon, a coding, reversing & networking competition under Techfest, Asia’s Largest Technical Festival held at Indian Institute of Technology, Mumbai (IIT-B); January 2008 (Was also offered an internship interview by MSIDC (Microsoft India Development Center) in appreciation of good performance)
- First in C & C++ programming competition under Radiance by IEEE Student Branch, Nirma University; April 2007

SEMINARS/PAPERS

- Delivered a seminar on “ARM Processors” under the Seminar course, Nirma University; October 2008
- Presented a paper on “Development of self-learning AI algorithms using Backpropagation Neurocontrollers” under TechnOdyssey, organized by IEEE Student Branch, Nirma University; September 2008

COMMUNITY MEMBERSHIPS

- IEEE Student Branch, Nirma University; March 2008-March 2010

PREVIOUS ACHIEVEMENTS

- Distinctive performance (AIR 157) in the final round of the 8th NSO by the SOF
- Academic: Scholarships & certificates of excellence in Maths, English & Sanskrit (thrice) by Amrit Jyoti High School
- Extracurricular: Class 1 Sanskrit Bhushana, Blue Belt San Dan (Karate), First prizes in Hindi essay-writing, Assembly, etc. & two prizes for excellence in Personality