

# Arjun Prakash

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## SUMMARY

Software Engineer with solid programming and scripting skills, extensive experience on Windows and Linux systems, quick problem solving skills and a desire to learn new technologies

### **Strengths include:**

- Distributed Client/Server Systems
- Knowledgeable in Computer Network & Protocols
- Excellent knowledge in Comp. Architecture & Virtualization
- Multi-threaded and Network programming
- Protocols Proficient in using Software Tools and Simulators
- Strong Oral and Written Communication skills

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## EDUCATION

**Master of Science** Major: **Computer Engineering [ECE]** Minor: **Computer Science [CISE]** **Gainesville, FL**  
**University of Florida** May 2010

**Coursework:** Advanced Data Structures, Concurrent Programming, Virtual Computers, Reconfigurable Computing, Parallel Computer Architecture, Computer Communications, Computer and Network Security, Comp. Architecture & Embedded Systems  
GPA: **3.86/4.0**

**Bachelor of Engineering** Major: **Electronics Engineering** **Surat, India**  
**National Institute of Technology, Surat** [Deemed University] May 2006

First Class with Distinction

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## SOFTWARE SKILLS

**Programming Languages:** C, C++, Java, Shell scripting, Python, ASP.NET, C#, T-SQL, VHDL, x86 / 8085 Assembly

**Concurrent Programming Languages & Tools:** Java, pthreads, MPI(Message Passing Interface), UPC(Unified Parallel C), OpenMP

**Operating Systems:** Linux, Windows, UNIX (AIX) **Virtual Machines:** VmWare Server, XEN 3.0, Hyper-V

**Databases:** Sybase (ASE 12.5, Replication server), MS SQL Server, DB2 UDB

**Tools/IDE:** Eclipse, Visual Studio, Git version control, Wireshark, NS-2, Simics x86 simulator, Keil uVision2, Xilinx ISE 10.1

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## WORK EXPERIENCE

**Advanced Computing & Information Systems Lab, UF, Gainesville** May 2009 – till date

Role: Student Assistant (under Dr. Renato Figueiredo)

- Developed Virtual Appliances for effortless configuration of clusters running MPI & Hadoop (using zeroconf - service discovery)
- Implemented a DNS Forwarding Server for IPOP (IP over P2P) - a widely used open-source P2P network virtualization software

**Tropical Research and Education Centre (T.R.E.C)** – Agricultural Economics Extension, UF Apr 2009 – Jun 2009

Role: Web Developer - ASP.NET, C#, MSSQL, Google Maps API

- Developed Business Finder, a web application for direct marketing of tropical agricultural products from Florida

**Atos Origin, Mumbai - India** Client: **Standard Chartered Bank** Jun 2006 – Jul 2008

Role: Database / Systems Administrator; Tech-Lead for Sybase DBA Team (Jan 2008 – Jul 2008)

- Certified in Sybase ASE Database Administration and IT Service Management Foundation Level (ITIL)
- Maintenance and performance tuning of Sybase Data servers and replication servers on Linux, AIX and Windows platforms
- Provided recommendations for improving optimal data access strategies, better I/O balancing and Memory tuning

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## PROJECTS (For further details: <http://plaza.ufl.edu/arjun.prakash/projects.html>)

- Implementation of a Mesh N/W of Wireless Access Points (built using Alpine Linux) for Fault Tolerance UF, 2010
- Implementation and Comparison of Parallel Branch and Bound Algorithm on Distributed memory and SMP Architectures UF, 2009
- Implementation of Multithreaded Electronic Trading Platform for conducting simultaneous open outcry auctions UF, 2009
- Offline simulations of the cache design space using Simpoint and SimpleScalar to determine the best cache configuration UF, 2009
- Implementation of SSL-like protocol for creating and resuming secure connections b/w computers UF, 2009
- Implementation of B-Tree data structure and calculation of the order (of B-tree) resulting in best performance on a system UF, 2009
- Quantitative analysis of Earliest Deadline First scheduler in XEN Virtual Machines using Simics x86 simulator UF, 2008
- Implementation of Prewitt Edge Detection Algorithm on FPGA and comparing its speedup with software implementation UF, 2008
- Implementation of Instruction Set simulator for simulating In-Order, Multiple Instruction Issue Superscalar Processor UF, 2008
- Design and implementation of a microcontroller based network switch to connect computers using RS-232 cables SVNIT,06
- MICROMOUSE: Autonomous maze solving robot mice – an International Level robotics competition IIT-B, 05

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## ACCOMPLISHMENTS AND OTHER ACTIVITIES

- Received best student award during training sessions in Atos Origin, Mumbai (2006)
  - Secured second rank in 12th grade board exams in school (with 92%) and topped in mathematics, KV Kottayam (2002)
  - Secretary of Indian Society for Technical Education (ISTE) Students Chapter, NIT Surat (2004 - 2005)
  - Organized Robotics Competition of College Technical Festival – Mindbend, NIT Surat (2005)
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