Sai Sreenivas K

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Education

Program	Institution	% (or) CGPA
Dual Degree in CSE	Indian Institute of Technology, Madras	8.24 (Major: 8.41)
XII	Pratibha Jr.College, Hyderabad	91.3
X	Gowtham Model School, Hyderabad	91.6

Scholastic Achievements

- All India Rank 402 in IIT-JEE 2008, among top 0.1%.
- Top 0.15% in AIEEE 2008 & Eamcet 2008.
- District 5th in *Matrusri* talent search exam.

Key Courses

- Graph Theory, Machine Learning, Design & Analysis of Algorithms, Software Engineering, Probability & Stochastic processes, Natural Language Processing, Modern Compilers: Theory & Practice, Kernel Methods for pattern analysis, Parallel Computer Architecture, Language Translators, VLSI Design Automation Algorithms, Distribued Computing, Operating Systems

Interests

- Performance oriented programming, Machine Learning & Algorithms.
- Probability & Statistics.

Skills

- **Languages:**
  - C, C++, Java & Objective-C
  - Python, MATLAB & bash scripting
  - Common Lisp, Prolog & Verilog
  - LaTeX
- **Linux Operating System**
  - Familiar with Unix BSD sockets & pthreads libraries.
  - Unix tools: Flex, Yacc, Git, Vim & Eclipse.
- **Large Software Frameworks**
  - LLVM Compiler for C++
  - Jikes-RVM a java virtual machine

Master's Thesis

- **Machine Learning techniques for Tuning Java-RTE**
  Guide: Dr.Shankar Balachandran *August 2012 - May 2013*
  - Architecture specific tuning in Java-RTE.
  - Automatic construction of compiler heuristics using statistical analysis.
  - Worked on java research framework *Jikes-RVM*.

Internships

- **IBM-HPC Labs** Bangalore
  Mentor: Seshasayee V Subramanian *May 2012 - July 2012*

- Parallel Algorithms for Big data Analytics
- Implemented parallel version for *K-Means clustering* algorithm on *MR-MPI* frameworks
- Scaleup & Scaleout is measured across several data upto 5 high compute nodes

- **Juniper Networks** Bangalore
  Mentor: Uday Kishore *May 2011 - July 2011*
  - Analysis & Recommendations for migration of centralized database to distribued file systems & databases

Experience

- **Kiwi Inc.** Bangalore
  July 2013 - Present
  - I work in cross platform development for iOS at **Kiwi Inc** Bangalore. We are responsible for porting a game developed in java (targeted for android platform) onto iOS platform without redoing the entire development process because of the different technologies used in both of them. I have worked on various aspects, starting with third party library integrations catering ads, creating database models for iOS specific functionalities, refactoring some of the existing code to make the codebase more modular and the issues which arise because of the different databases used in android and iOS. I also dealt with improving the performance of the game application and hence providing better user experience. Through this experience i've had a chance to pick varied programming skill sets involving Java, C#, Objective-C and Php.

Past projects

- **Strength reduction of python loops to Map, Reduce & Filter**
  Instructor: Dr.Shankar Balachandran *Aug 2011 – Nov 2011*
  - Designed and implemented Control & Data flow analyses for python programs.
  - Implemented to handle *for* loops and *nested for* loops
  - Transformations are implemented as pass structure.
  - Experimented with real time program: *Association rule mining*

- **Spam Filter**
  Instructor: Dr.Sutanu Chakraborti *Aug 2011 – Nov 2011*
  - Designed and implemented *Bayesian Spam filter* for spam classification

- **VLSI Automation algorithms**
  Instructor: Dr.Shankar Balachandran *Jan 2011 – April 2011*
  - Implemented placement heuristics for VLSI chips to minimize the chip area & the total wire length.
  - Achieved promising results on IBM benchmarks.

- **Pint-OS**
  Instructor: Dr.Krishna Sivalingam *Aug 2010 – Nov 2010*
  - Pint-OS a partially developed kernel.
  - Implemented priority scheduling, system calls & demand paging.

- **Compiler for Pascal**
  Instructor: Dr.Siva Ram Murty *Aug 2010 – Nov 2010*
  - Developed compiler for Pascal language, starting from syntax analyzer till the generation of intermediate code in C.
  - Implemented using Unix tools Flex, Yacc & C languague.

- **Dead block detection in cache**
  Instructor: Dr.Madhu Mutyam *Aug 2010 – Nov 2010*
  - Simulated dead block detection & eviction in using cache burst techniques.
  - Implemented using M5 simulator.

- **Computational Biology**
  Guide: Dr.Ashish V Tendulkar *May 2010 – July 2010*
  - Protiens represented as graphs, task is to extract various graph properties.
  - Implemented various graph algorithms in C++.

- **Case Based Reasoning**
  Instructor: Dr.Sutanu Chakraborti *Jan 2012 – April 2012*
  - Implemented *Case Based Reasoning System for Genre classification* in MATLAB.
- **4-Bit Processor**
  Instructor: Dr.Madhu Mutyam *Aug 2009 – Nov 2009*
  - Designed and implemented various components of processor such as ALU, instruction decoder, & register files.
  - Implemented in Verilog-HDL.

Positions of Responsibility

- Events core team member for Exebit-2012.
- Coodinator for workshop on *Parallel programming* for Exebit-2011.
- Design coordinator for Exebit-2010.