Utsav Jain   # Resume

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Education:

- July 2009 to July 2013: B Tech, Computer Science and Engineering, International Institute of Information Technology, Hyderabad.

    - Pursuing Undergraduate Honors in Security,Theory and Algorithms Lab under Dr. Kishore Kothapalli, Associate Professor, IIIT-H.

    - Currently in 6th semester, CGPA: **8.5** (at the end of 4 semesters).

Interests:

- Information Retrieval, Distributed Systems and Parallel Algorithms.

Achievements:

- Have been in the **Dean's List of Academic excellence** for second semester .

- Recipient of CBSE Merit Scholarship Scheme For Professional Studies – AIEEE (350 candidates are selected) .

- In top 0.3 % of students in **All India Engineering Entrance Exam 2009.**

- All India Rank 6246 in **IIT-JEE 2009** (out of 4 lakh students).

- Ranked 16th in all over India in ACM ICPC Amritapuri Regionals with team name **Blackout .**

Major Projects :

- *Efficient Convex Hull implementation on Hybrid Model (GPGPU and Multicores)*(Spring 2012): Implementing and analysing possible different approach to efficiently implement the hybrid model for Convex Hull problem on GPUs and Multicore CPUs .(CUDA , OpenMP/MPI , MKL libraries)

    Project Guide : Dr. Kishore Kothapalli ,Asst. Professor , IIIT-H   **Team size** : **2**

- *Compiler Optimization Phase Sequence Search* (Monsoon 2011):This project involves using heuristic search techniques to efficiently search for near optimal optimization sequences for the phase ordering problem. (using llvm, python)

    Project Guide: Dr .Suresh Purini , Asst. Professor , IIIT-H   **Team size : 1**

- *Review Summary System* (Monsoon 2011)*:* Implemented a system which can do feature-based opinion summarisation of customer reviews using Hadoop and NoSQL database using REST protocol . It takes the reviews as input and generates the feature-wise summary with weighted polarity. The features are identified by system itself.

    Project Guide: Dr . Vasudeva Varma , Associate Professor , IIIT-H **Team size** : **4**

- *Schema Populator* (Monsoon 2010): Built a system which given a schema with well-defined attributes and training samples would automatically populate the schema by searching/crawling Wikipedia and extracting contextual patterns for the input samples. These patterns are used to learn more instances and the process runs in an iterative manner to populate the schema.

    Project Guide: Dr. Kamalakar Karlapalem, Professor, IIIT-H.   **Team size** : **2**

Minor Projects:

- *Parser for Espresso Language:*Implemented the parser , with efficient error handling capable to check syntatic correctness of input program. (using Flex , Bison and C)

- *Linux shell*: Designed a basic Linux shell for running all type of commands with piping and redirection functionality, in C using system calls.

- *Proxy Web server*: Designed a proxy web server with cache functionality which serves HTTP requests from multiple clients. (using Java)

- *Basic Image Processing Algorithm*: Implemented algorithms like template matching, edge detection, image compression .(using Matlab)

- *Music Library*:Built an on-line music library (using web2py).

- *BASIC language Interpreter*:part of a team which implemented an interpreter for BASIC (using C)

- *Graphic API Libraries*: I developed the complete graphics pipeline from modelling, viewing, projection and view-port clipping

Work Experience

- *Teaching Assistant* for Computer System and Architecture under Prof. Suresh Purini during Spring 2012, at IIIT-H

- *Internship at Yantrak* (Summer 2011)*:* Worked on a patented Bank Security Software . Implemented a prototype to create a total protected channel for communication from the present network attacks. (patented by **Yantrak**)

Relevant Coursework:

On-going (Spring 2012)*:*

- Topics in Distributed Algorithms , Artificial Neural Networks , Optimization Methods .

Completed:

- Complexity and Advance Algorithms, Compilers, Cloud Computing, Number Theory and Cryptology. Machine Learning (on-line class by Stanford University),Artificial Intelligence, Graphics, Computer Networks, Algorithms, Operating Systems, Introduction to Databases,

- Data Structures, Computer System Organization,IT Workshop (Bash, HTML, web2py, Python GTK), Mathematics (Probability,Graph Theory, Linear Algebra).

Technical Skills:

Programming/Scripting Languages	C,C++, Java,CUDA C, Python
Web development	web2py, HTML , CSS .
Operating Systems	Windows(XP , 7) , Linux(Ubuntu, Fedora , Arch).
Libraries	OpenGL , OpenMP(Basic).
Programming environment	Eclipse, Vim.
Architectures	Hadoop , CUDA
Miscellaneous	MySQL, NoSQL DB , MATLAB ,LaTeX

Co-curricular and Extra-curricular activities:

- Active coder in judge like **topcoder** and **codeforces** with handle name **ut_warrior .**

- Currently part of the technical and development team for on-line events of Felicity 2012 (Technical and Cultural Festival of IIIT-H).

- Member of IIIT -H Football team and my house Badminton team in IIIT-H .