

INTERNSHIPS

Encryption Domain Text Retrieval System

Summer 2011

Guide: Dr. Tzi-Cker-Chiueh

General Director, Cloud Computing Center for Mobile Applications,
Industrial Technology Research Institute, Taiwan

- Was involved in the **Design, Implementation and Evaluation** of Encryption Domain Text Retrieval System
- The project involved **Searching for a Keyword on the client side in the Compressed and Encrypted Text Document which is stored on the Server side**
- The steps in the project involved Compression of the text document, Encryption using Standard AES algorithm, Significant Word Set Generation (for faster search results), Most Relevant Word Set Generation (for Integrity Check of results), Decryption, Decompression, Indexing and making a Query Search.
- **Presented the idea** of achieving the goal, along with the implementation, **submitted a report** on the same, and received **Word of Appreciation** from the Director for the simple design and implementation of the desired system and the dedication to work

iDiscoveri Education

December 2010

- Worked as **Curriculum Developer** and developed innovative and creative Lesson Plans and Worksheets for students so that every child has an active participation in class
- Was awarded an **Additional Monetary Bonus** for contributing exceptionally in terms of quality and quantity of work done

PROJECTS

Implementation of Data Structures

Autumn 2010

Guide: Prof. Om P. Damani

CSE Department, IIT Bombay

Implemented **four** data structures, **AVL Tree, Splay Tree, Binomial Heap and Fibonacci Heap** independently which aimed at **reducing and comparing the time complexity** of basic methods of Insertion, Deletion, Searching, and Sorting if the data is stored in them

Rubik's Cube Solver

Spring 2010

Guide: Prof. Amitabh Sanyal

Head of Department, CSE, IIT Bombay

- Provided an interface for user to solve a randomly generated Rubik's Cube using the Graphical keys on screen. Also, implemented the AI to enable the computer to solve a randomly generated Rubik's Cube or a cube given by user, and also check whether a particular arrangement of small colored cubies making a Rubik's Cube is correct or not

- It involved Image Thinning, Image Enhancement, Minutiae Detection and post-processing

SCHOLASTIC ACHIEVEMENTS

- Awarded the **National Talent Search Examination Scholarship** after clearing all the three phases (2006-07)
- Awarded **Certificate of High Distinction in Mathematics** by the **University of New South Wales**, Sydney, for scoring 99 percentile in the International Assessment of Indian Schools exam conducted by Educational Assessment Australia and Macmillan, India (2005-06)
- Awarded the **IIT Bombay Heritage Fund Scholarship** for academic performance (2009-10)
- Awarded the **Certificate of Merit in Indian National Chemistry Olympiad** for being among the top 1% of the students appearing for the exam (2008-09)

COURSES UNDERTAKEN (pursuing a Minor in Statistics)

Core:

Operating Systems (+Lab), Database and Information Systems (+Lab), Computer Architecture (+Lab), Logic Design (+Lab), Data Structures and Algorithms (+Lab), Design and Analysis of Algorithms, Automata Theory, Discrete Structures, Abstractions and Paradigms (+Lab), Computer Programming and Utilization (+Lab)

Mathematics and Statistics:

Statistical Inference, Introduction to Probability Theory, Data Analysis and Interpretation, Numerical Analysis, Differential Equations, Linear Algebra, Calculus, Economics

Computer Proficiency:

Programming/Scripting Languages: C, C++, Java, Perl, Bash, LaTeX, VHDL, MIPS, Scheme
Web: HTML/CSS, Java Script, MySQL

POSITIONS OF RESPONSIBILITY

Department Alumni Secretary

(2011-12)

- Coordinate with **Student Alumni Relations Cell**, to contact the alumni for funding, Silver Jubilee Re-Union, Alumni Student Mentorship Programme, and Decennial Celebration.
- Responsible for compiling, maintaining and expanding the database of over 2000 alumni of the CSE Department, IIT Bombay

Served as **Head Boy** of our school in the academic year 2008-09

Served as **Captain** of one of the houses in our school in the year 2006-07

EXTRA-CURRICULAR ACTIVITIES

- Awarded the **Hostel Cultural Special Mention** in the year 2010-11, for outstanding contribution to the Inter-Hostel General Championships, in both solo and group events, which eventually lead our hostel to win the Overall Cultural GC
- Got the only position for my hostel in **Kavya-Sandhya GC**, for my self-written poem
- Was applauded as **Lead Actor** in a play, written and scripted by myself, in the **Annual Sophie Productions, 2010**
- Won the **Best All-Round Student Shield**, in both **Sub-Juniors** and **Juniors** category in my school in 2003-04 and 2005-06 respectively
- Was awarded the **Patron's Memorial**, the highest award given to a student in our school for both academic and extra-curricular achievements during an year, in 2005-06
- **Interests-** Fashion, and History