

# SHREYAS DUBE

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## OBJECTIVE:

Seeking a full time position utilizing my technical, analytical and inter-personal skills.

## WORK EXPERIENCE:

**Summer Intern**, Pfizer Research Tech Center, Boston, MA, (**Java**) June '07 – August '07

- Advanced the state of the art in Scalable Hierarchical Clustering technology – Developed the only known method that can cluster over **200k** compounds (methods in literature cluster <**20k**).
- Improved Nearest Neighbor Searches by **60%** by using efficient data structures (M-Trees).

**Software Engineer**, Cybage Software Pvt. Ltd., India, (**Java, C++, XML**) July '05 – July '06

- Collected requirements from End-users (JnJ, Novartis, GSK) and wrote Product Specifications.
- Designed and developed Prototypes and Application Services for Grid-enabling life science, bio-informatics, graphics and statistical applications for our clients United Devices (Texas).
- Trained and built a team to handle Application Service development.

## EDUCATION:

**Master of Science in Computer Engineering (GPA: 3.58/4.0)** December '07  
University of Florida, Gainesville, Florida

Coursework includes Analysis of Algorithms, Programming Language Principles, Computer Architecture Principles, Distributed Operating System Principles, Advanced Data Structures, Parallel Computing, Mobile Computing, Data Mining and Bioinformatics.

**Bachelor of Engineering in Computer Engineering** June '05  
Pune Institute of Computer Technology, University of Pune, India

## COURSE PROJECTS:

**Compiler and Parser for a functional language (RPAL)**, Java April '07

- Developed a Parser to generate an abstract syntax tree for the input program,
- Developed a Control Stack machine to evaluate the abstract syntax tree to an expression.

**RISC Microprocessor (MIPS) Simulator**, Java April '07

- Developed a disassembler capable of converting a binary file to MIPS assembly code,
- Implemented the Tomasulo algorithm for a pipelined processor to execute the sequential MIPS instructions non-sequentially (out-of-order) to achieve improved parallel executions.

**Distributed Chat Server with focus on scalability, fault tolerance**, Java, XML December '06

- Designed a protocol for communication between various components of the chat application, along with the message formats and sequencing, used an asynchronous event model,
- Developed multi-threaded distributed chat servers with the following features: server discovery, user session management, scalability – distributed chat servers, fault tolerance – user migration, server recovery– backup neighbors and users connected to it.

**Visualization tools to display sensors in a system hierarchically**, Java 2D December '06

- Implemented clustering to determine the details to display depending on the elevation level.

**Implementation of Computational Grid**, Java, XML, MySQL March '05

- Developed a Grid framework that exploited the underutilized computing resources within an organization and created a Distributed System to increase the overall resource usage;
- Awarded **2<sup>nd</sup> Prize**, Distributed Systems category. (final year undergraduate project)

## SKILLS:

**Languages** Java, C, C++, XML, HTML, CSS, ASP, Assembly Language (8085, 8086)

**OS and Databases** Windows, Linux, MySQL

**Tools** CVS, Apache Ant, Make, Eclipse IDE

## AWARDS:

Awarded **2<sup>nd</sup> prize**, I.E.E.E. 8085 programming contest March '04

Awarded **3<sup>rd</sup> prize**, I.E.E.E. paper presentation contest (Digital Signatures) March '04