

EDUCATION

STONY BROOK UNIVERSITY

Stony Brook, New York

Aug 2016 – Dec 2017 (expected)

- **Masters in Computer Science**, CGPA: **3.84/4**
- Coursework: Operating Systems, Algorithms, System Security, Machine Learning, Computer Networks, Visualization
- Working in the **File Systems and Storage Lab** on Parametric Optimization of Storage Systems project under the guidance of Prof. Erez Zadok <http://www.fsl.cs.stonybrook.edu/~tushar/>

VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE (VJTI)

Mumbai, India

July 2010 – May 2014

- **Bachelor of Technology(B.Tech) in Information Technology**, CGPA: **9.4/10 (1st rank in Class)**
- Awarded VJTI Certificate of Merit and Ratan Tata Scholarship during the years 2012, 2013 and 2014

TOOLS AND TECHNOLOGIES

- Programming Languages: C#, Java, C, C++, Python, SQL
- Technologies: .Net Framework, Hadoop, NUnit, Moq, Git, SVN, Visual Studio, Eclipse
- Database: MySQL, Oracle, MongoDB
- Web Technologies: HTML, XML, PHP, Javascript, AngularJS, NodeJS

EXPERIENCE

2 YEARS, 4 MONTHS

CREDIT SUISSE, INDIA *Technology Analyst*

July 2014 – July 2016

- Responsible for designing and developing sophisticated and scalable low latency algorithmic trading applications used for running high frequency automated trading strategies in multiple Financial Markets
- Developed various analytical, support and risk monitoring tools to prevent trading breaches and generate analysis reports
- Efficiently handled processing, storage and retrieval of various kinds of data from multiple sources
- Involved in lot of code enhancements, bug fixes, unit and integration testing of the applications making it more robust
- Implemented a new compliance module from scratch thus improving the execution speed of the applications by 35%
- Played a major role in the cross regional deployment of the trading applications
- Tools and Technologies Used: C#, Java, WPF, SQL, AngularJS, Visual Studio, Eclipse, MySQL

CREDIT SUISSE, INDIA *Technology Analyst Intern*

May 2013 – July 2013

- Worked on the development of an Automated Risk Control System designed for financial and regulatory risk management
- Performed detailed analysis of existing system and presented ideas resulting in 30% improvement over the current system
- Tools and Technologies Used: C#, WPF, XAML, SQL, Visual Studio, MySQL

SHRADDHANAND MAHILASHRAM, INDIA *Web Developer*

Dec 2012 – Jan 2013

- Led the development of the company's website enabling people across the world to access it and make online donations
- Technologies Used: HTML, CSS, PHP, JavaScript, SQL

PROJECTS

Per Process System Call Vector

Operating Systems, Nov 2016 – Dec 2016

- Implemented a kernel based system to support per-process system call vectors through which users can invoke different implementation of system calls. The system implements a new clone system call to support the system call vectors.

Stackable Tracing File System

Operating Systems, Oct 2016 – Nov 2016

- Developed a stackable tracing file system by modifying the existing Wraps file system to intercept read, write, lookup and other system calls to capture records of file system activity. All the trace records can be replayed from the user level.

Antivirus for Linux

System Security, Oct 2016 – Nov 2016

- Developed an antivirus for Linux to intercept all files and check against a known malicious pattern database. A user level program will update the pattern database accordingly.

Alternative memory layouts for the suffix array

Computational Biology, Oct 2016 – Dec 2016

- Implementation of alternative memory layouts such as Btree and Eytzinger in C++ for suffix array search operations.

Mergesort System Call in Linux Kernel

Operating Systems, Sept 2016 – Oct 2016

- This project involved implementation of a new system call in Linux kernel that takes two input files, merge-sorts them, and produces an output file. All checks and validations were done at the system level.

Performance Optimization for Image Searching On Hadoop Cloud

VJTI Final Year Project, July 2013 – April 2014

- The project involved performance optimization of storing, searching and retrieving fingerprints and face images from a large dataset. It was implemented on Hadoop Cloud Infrastructure.

Student Dashboard

Credit Suisse VJTI Coding Challenge, Dec 2012 – Feb 2013

- Designed and developed an application in which students and teachers can manage their profile, documents, activities, courses, assignments, blogs, forums, etc. Finished 1st in the Coding Challenge contested by more than 200 teams.