SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank **154**, State Rank **1** amongst over **0.5 million** candidates in **IIT-JEE** 2012
- Awarded Certificate of Merit in Mathematics, Computer Science and Chemistry for being in top **0.1%** of the successful candidates in AISSCE 2011
- Stood 1st in Bhopal Navodaya Region in AISSCE 2011
- Pursuing Honors in Computer Science & Engineering

WORK EXPERIENCE

Microsoft IDC, Hyderabad *Summer 2015*

Guide: Akshay Prabhu

- Developed a tablet based android application targeted for high school teachers which enables them to correct digital assignments anytime anywhere in a hassle-free manner
- Worked on multiple Microsoft technologies like Azure Cloud Services, Azure Active Directory, SQL Server, Office 365 SSO, TFS, MVC framework
- Focused on end to end development of the preliminary version of the application starting from detailed architecture design to beta testing and deployment

Wegilant Net Solutions, Mumbai *Summer 2014*

Guide: Toshendra Sharma

- Developed a cloud based java framework to detect security loopholes in android apps using BCEL
- Designed and implemented algorithms to detect top OWASP security vulnerabilities in Android codes
- Implemented object-oriented models in appvigil.co backend and integrated it with the framework we had developed to ensure scalability and continuous integration in future

Aasaanjobs.com, Mumbai *Winter 2013*

- Was part of web development team at Aasaanjobs.com, a recruitment portal for blue collared and entry level white collared workers
- Modeled various entities and their relationships and incorporated them in the backend using MVC architectural pattern in Django

KEY ACADEMIC PROJECTS

Classification of loops for parallelization in GPGPU architecture *Ongoing*

Undergraduate Thesis Project under Prof. Supratim Biswas

- Working on empirical analysis of loops and array references in benchmark programs to identify most common patterns which would help in designing efficient algorithms for parallelization
- Main goal is to design an efficient algorithm and develop an abstraction of GPGPU architecture in the form of cost metrics to analyse the performance of our algorithm for common patterns against other popular models like polyhedral model

Mobile Scanner *Autumn 2014*

Guide: Suyash Awate

- Developed an application to stitch closely captured images of portions of a page together to output the full page image with decent resolution and clarity
- After initial pre-processing, the images were passed into an image-stitching pipeline which extracted and matched the features in the images, performed bundle adjustment and warped the images together

OS Simulator - C++ *Spring 2014*

Guide: Prof. Dhananjay Dhamdhere

- Simulated the working of an OS by simulating its components like Scheduler, Virtual Memory and File system taking process synchronization and data integrity into account
- Created an Interactive Unix shell which supported execution from batch files, parallel and sequential execution of programs, background processes, input/output redirection, piping and cron

C Compiler - C++ *Spring 2014*

Guide: Prof. Amitabha Sanyal

- Created a compiler for a C-subset language which generates assembly code for a simulated x86 machine using flex and bison as the parser generator
- Used Sethi-Ullman Algorithm for generating optimal evaluation sequence for expressions minimizing the number of storage references during evaluation

Bus pathfinder and Registry System - Java, PostgreSQL *Autumn 2014*

Guide: Prof. NL Sarda

- Developed an integrated web interface to facilitate efficient bus searches and effective bus management in a city
- Modeled system entities (Routes, Bus stops, Buses, Bus users, Roads in city) and interactions between them using Entity-Relationship (E-R) models and incorporated them in the backend using java

Simulation of a JCB Digger using Box2d - C++ *Spring 2013*

Guide: Prof. Parag Choudhury

- Designed a JCB Digger and simulated it's functionalities in a virtual world using Box2D, A 2D Physics Simulator engine
- Used various tools like GProf, Perf, Gnuplot, Matplotlib (plotting) to analyze the performance and improve it

OTHER PROJECTS & SEMINARS

Remote PC control using hand gesture - Python *Summer 2013*

Institute Technical Summer Project(ITSP)

- Developed a Linux based virtual mouse program using OpenCV library in Python
- implemented common mouse operations like pointer movement, left click and right click using hand movements and gestures as input

Self-Organization in Artificial Intelligence *Spring 2014*

Paper presentation under Prof. pushpak bhattacharyya

- Studied and presented the paper "Self-Organization in Artificial Intelligence and the Brain by Ananth Ranganathan, Zsolt Kira"
- The paper elaborates the emergence of various patterns and maps in the brain and their counterparts in the Neural Network domain

SKILLS AND ABILITIES

- Programming languages: C++, Java, Python, PLT Scheme, Prolog
- Web Development: Django, PHP, SQL
- Others: Android, Findbugs, Matlab, OpenCV, Box2D

EXTRA CURRICULAR ACTIVITIES

- B Certificate in NCC
- Was part of hostel Water Polo team in GC which bagged the first position
- Completed 6.3km Crossy GC for hostel 7 held in IIT Bombay
- Represented hostel 7 in Triathlon GC