

SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank **154**, State Rank **1** amongst over **0.5 million** aspirants in **IIT-JEE** 2012
- Awarded Certificate of Merit in Mathematics, Computer Science and Chemistry for being in top 0.1% of the appeared 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 school assignments in the app itself in a hassle-free manner
- Worked on multiple Microsoft technologies like Azure Cloud Services, Azure Active Directory, SQL Server, Office 365 SSO, TFS, MVC frameworks etc.

Wegilant Net Solutions, Mumbai

Summer 2014

Guide: Toshendra Sharma

- Developed a java based framework to detect security vulnerabilities in android codes using BCEL
- Wrote algorithms to detect OWASP top 10 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

Deltaturtle.com, Mumbai

Winter 2013

- Developed a web application using Django to enable users to take online tests based on difficulty levels and get detailed report of their performance
- The application was targeted towards IIT-JEE aspirants to ease their preparation process by giving them performance feedback based on advanced analytics

KEY ACADEMIC PROJECTS

Parallelization of Loops with Variable Distance Data Dependence

Ongoing

Undergraduate Thesis under Prof. Supratim Biswas

- Working on analysis of loops with variable distance data dependence for parallelization. Final aim is to generate parallel vector codes for loops with array references having data dependence between two iterations
- Currently analysing common programs which are heavily dependent on arrays and loops to extract the patterns of data dependence in them

Bus pathfinder and Registry System - Java, PostgreSQL

Autumn 2014

Guide: Prof. NL Sarda

- Developed an integrated web interface to facilitate bus searches and manage bus system in a city
- Modeled bus entities (Routes, Bus stops, Buses, Bus users, Roads in city) and interactions between them using Entity-Relationship (E-R) models and implemented the functionalities in Java

Mobile Scanner

Autumn 2014

Guide: Suyash Awate

- Created 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 extracts and matches the features in the images, performs bundle adjustment and warps the images together

C Compiler

Spring 2015

Guide: Prof. Amitabha Sanyal

- Created a compiler for C which generates assembly code for a simulated x86 machine using flex and bison as the parsing engine
- Used Sethi-Ullman Algorithm for generating optimal code which produces an evaluation sequence minimising the number of storage references during evaluation

OS Simulator - C++

Spring 2015

Guide: Prof. Dhananjay Dhamdhare

- Simulated the working of an OS by simulating its operations like Scheduler, Virtual Memory and File system
- 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.

Simulation of a JCB Digger using Box2d - C++

Spring 2014

Guide: Prof. Parag Choudhary

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

SELF PROJECTS

Remote PC control using hand gesture - Python

Summer 2013

Institute Technical Summer Project(ITSP)

- Developed a Linux based gesture controlled mouse program using OpenCV library in Python which simulated the behaviour of mouse
- implemented common mouse behaviours like pointer movement, left click and right click using hand movements and gestures as input

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