INTERNSHIPS AND RESEARCH

Microsoft India R&D - Software Developer Intern   Summer'15
Mentor: **Akshay Prabhu**
- Developed a **Cross Device Productivity App** in Android and Windows Universal App Framework
- The app routes the critical information and phone calls arriving on phone to the Windows 10 Desktop and lets user act on it remotely
- Worked on Windows Azure Service Bus and Mobile Service to Handle the backend for the application

Implementation and analysis of distributed algorithms in Machine Learning   Aug'15-Present
Guide: **Prof. Ganesh Ramakrishnan**   B.Tech Project
- Working on implementation of distributed stochastic optimization on large data-set for binary classification using Spark and Akka tool in scala language
- Future work involves exploring and utilizing this concept of distributed algorithms to Multi Task Learning (MTL)

Software Developer, Function Space   Summer'14
- Implemented a **Document Classifier** in python using **Maximum Entropy Classification Algorithm**
- Used **D3.js** library to create User Interface with Dynamic and Interactive Components for data visualization

Web Developer, Infermap   Nov'13-Feb'14
- worked as **Web Developer** at **Infermap**, a web based educational portal launched in 2014, started by IITB students

KEY PROJECTS

Compiler   Jan'15-Apr-15
Guide: **Prof. Amitabha Sanyal**
- Incrementally designed a compiler in different stages for tokenizing, parsing, syntax-analysis and code generation using FlexC++ and BisonC++

Machine Translation - Natural Language to SQL   Aug'14-Nov'14
Guide: **Prof. Dr. Pushpak Bhattacharyya**
- Worked on various aspects of **Natural Language Processing** for translating queries written in natural language to SQL
- Implemented Machine Learning and Rule Based approach and compared their performances

Remote Desktop Connection   Aug'14-Nov'14
Guide: **Prof. Varsha Apte**
- Program for browser based remote desktop connection for controlling desktop remotely
- Implemented socket connection between client browser and python server on remote desktop for communicating screenshots and client activity

Chess   Mar'13-Apr'13
Guide: **Prof. Amitabha Sanyal**
- Implemented single/double player chess game in **MIT-scheme**, a functional programming language
- Employed artificial intelligence using the **Mini-Max algorithm** with **Alpha-Beta pruning**

Transformer Animation — Aug'14-Nov'14
Guide: **Prof. Parag chaudhuri**

- Modeled, textured and animated a transformer robot from scratch with OpenGL
- Developed an interactive environment for the keyboard controlled bot

Grapheme to Phoneme conversion & vice versa — Spring 2014
Guide: **Prof. Dr. Pushpak Bhattacharyya**

- Used hidden markov model (HMM) for obtaining transition and emission probabilities
- Applied Viterbi algorithm for getting the best state sequence

iNote - Handwriting to Text Converter — Summer'13
Institute Technical Summer Project

- Built an **Android App** which takes notes in your handwriting and converts it to text
- Awarded **Best Research Project Award**

Other Projects

- **Steam Engine Simulation** in Box2D, a Physics Simulation Engine based on OpenGL
- **Virtual Memory Implementation**
- **Disc Simulator** with Cache and Elevator algorithm for scheduling IO
- **Fish Aquarium Simulator** designed and developed in C++

SCHOLASTIC ACHIEVEMENTS

- Achieved **62nd** rank at Amritapuri onsite round of **ACM-ICPC 2014**
- Secured an All India Rank of **290** in **IITJEE 2012** among **Half a million** aspirants
- Secured 17th position in **Indian National Mathematical Olympiad 2011** conducted by NBHM and Attended **IMO Training Camp 2011** conducted by HBCSE, Mumbai
- Awarded a Gold Medal in **Indian National Physics Olympiad 2012** and Attended **International Physics Olympiad Training Camp 2012** conducted by HBCSE, Mumbai
- Secured 8th position in Maharashtra state in Highschool scholarship Examination conducted by Maharashtra state board

TECHNICAL SKILLS

- Skilled in **C/C++** Object Oriented Programming and **scheme(Lisp)** functional programming
- Skilled in Web Development using **PHP, JQuery, HTML5, CSS3, MySQL**, Frameworks like **Laravel**(MVC Framework for PHP) and **Android Programming**

POSITIONS OF RESPONSIBILITY

Teaching Assistant — Ongoing, Autumn'15
CS 101:*Computer Programming and Utilization*
Helping in Lab Supervision and conducting Remedial labs

CO-CURRICULAR ACTIVITIES

- Active user on online coding forums like SPOJ(Sphere Online Judge) and Hackerrank
- Participated in Yahoo! HackU and Microsoft code.fun.do, 24 hours coding competitions
- Made an RC car for XLR8, a multi-terrain race for RC cars
- Successfully completed the course conducted by **National Service Scheme**
- Participated in interschool football matches

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