SATYAPRIYA KRISHNA

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ACADEMIC QUALIFICATION

Bachelor of Technology in Computer Science, The LNM Institute of Information Technology, Jaipur; Expected Completion: June 2016. CGPA 9.11/10

Online Courses

- Awarded Distinction in an online course "Practical Machine Learning" offered by John Hopkins University through Coursera.org, June-August, 2015
- Awarded distinction in a MOOC(Online Course) on "Programming for Everybody(Python)" offered by University of Michigan through Coursera.org , January-May 2015
- Awarded distinction and secured position among the top 4 in a MOOC(Online Course) on "Design And Analysis of Algorithms" conducted by Microsoft, September 2014-January 2015

WORK EXPERIENCE

PHP Programmer, National Informatics Center, Government of India, November 2013-January 2013

Project Title: Project Information Tracking System

- Contributed in maintaining a software that helps track the progress of several other projects
- Responsible for building reliable and faster system to access tracking information

ACADEMIC PROJECTS

Project Title: Similarity Measures of Recommender Systems, August-November 2014

Objective: To implement the paper "Adaptive user similarity measures for recommender systems: a genetic programming approach" by Deepa Anand and Kamal Bhardwaj.

Team Size: Individual Project.

Development Software Used - MATLAB

- Worked on Finding adaptive similarity functions in Recommender Systems using Genetic Programming
- Derived adaptive similarity measure using Genetic Programming, which extracts the best similarity function for data set
- Utilized Pearson Correlation Coefficient (PCC) and Vector Space Similarity(VS) for performance comparison and the experiment was run on 4 datasets ,i.e. Jester, Eachmovie, MovieLens and Epinions

Project Title: Inter-Process Communication (IPC) Using Token Rings, January-March 2014

Team Size: 4

Objective: To research ways to improve Inter Process Communication using Computer Networking algorithms

Programming Languages: C, C++, Bash Shell, MATLAB

- Implemented papers on networking algorithms and assigned responsibilities to the members

Project Title: Inventory Database Management System January-March 2014

Team Size: 4

Objective: To develop a database system that holds the details of all the inventories and manages transactions through software

Database Used- MySQL; **Server Used:** Apache Server

- Designed database layout and produce report with all the possible queries which can be extracted from the database
- Developed a web application to store and manage inventories of a store
- Application followed the appropriate Normalization Forms for database management
- Applied various security measures such as SQL injection and Cross-Site Scripting
- Developed the User interface using CSS, PHP HTML, Javascript, AJAX

Project Title: ISTAv1.0- Instruction Set and Two Pass Assembler August-November 2013

Team Size: 3

Objective: To develop an Instruction Set and a Two Pass Assembler for it

Programming Languages: 8085 Machine Language (Reference), C Language

- Designed an Instruction Set of 16 bit word size and 20 bit Address
- Developed a two pass assembler for the corresponding Instruction Set.
- Assembler of the Instruction set was developed using several efficient data structures such as Hashtable ,Tree and Graphs

Project Title: Flash Analog to Digital Convertor, January-April 2013

Team Size: 3

Objective: Hardware implementation of 2 bit Flash Analog to Digital Convertor

- Worked on simulations and circuit design

INTERNSHIP

Teacher Assistant- Data Structure and Algorithms, July-October 2015

- Responsible for helping and explaining algorithms being taught during the lectures in the lab
- Graded students' lab performances and gave feedback

Intern, Visualization and Perception Lab, IIT Madras, May-July 2015
Project Title: Online Face Recognition Software
Objective: To achieve maximum modularity, for a change in classification algorithm

- Developed a software for online face recognition with 4 modules
- Devised a modular software with four modules, algorithm used was PCA and LDA as a classification algorithm.

Teacher Assistant- Computer Organization and Architecture January-May 2015

- Helped and explained concepts being taught during the lectures in the lab
- Graded students' lab performances

Intern, Computer Vision Lab, NIT Rourkela, May-July, 2014
Objective: To implement the results of several research papers on Shadow Detection and Removal

- Worked on the Color Invariance feature of shadows to detect and remove shadows
- Performed Texture Analysis for shadow detection using Gabor Filters

WORKSHOPS

- Attended Workshop on Modeling , Simulation and Computational Technologies, LNMIIT, January 2015
- Participated in an International Workshop on Emerging Technologies, LNMIIT, January 2014
- Attended a workshop on Web Development at Techfest 2012-2013, IIT Bombay, January 2013

TECHNICAL SKILLS

- **Languages & Tools :** C,C++,JAVA, MATLAB, Python, HTML, PHP, Javascript, R,Bison, Yacc, Flex
- **Operating Systems :** Windows, Ubuntu 12.04, Ubuntu 14.04
- **Database :** MySQL, Oracle, MongoDB
- **Type-Setting Software :** Latex
- **Frameworks :** Java Struts, Android, QT

COCURRICULAR PROJECTS

Project Title: Online Banking System, Seed Infotech, Pune, May- July, 2013
Objective: To explore new technologies used for website construction using JAVA and learn the use of MVC (Model View Controller) software model

- Developed the software in Java Strut Framework using Java Servlets and JSPs; Database: MySQL

Project Title: Quantified Self Movement Data Analysis May-July, 2015
Objective: To predict the manner in which the exercise in a gym was done,, under John Hopkins University's supervision.
Summary: Developed this project independently for an online independent course Practical Machine Learning on Coursera.org. The project was based on Human Activity Recognition (HAR), specifically on weightlifting exercises to know the extent of exercise done in gyms using data from accelometers on the belt, forearm, arm, and dumbell of six participants (http://groupware.ies.inf.puc-rio.br/har)
Languages: R language

ACHIEVEMENTS

- Awarded scholarship of INR 20000 for consistently scoring above CGPA: 9, for 5^{th} & 6^{th} semesters, Jan & June,2015
- Ranked 7^{th} out of (approx.) 150 students twice in Computer Science branch at LNMIIT, Jaipur, Mar & Aug 2015
- Under 3000(All India Rank)in CodeChef Online Coding Competitions for more than 6 months (at Codechef.com Sept 2013-Feb 2014
- Successfully contributed to open source projects on Github.com(Profile: https://github.com/y12uc231)
- All India Rank (AIR)-13196 in IIT-JEE-2012 among approximately 500000 participants ,2012
- All India Rank (AIR)-26027 in AIEEE-2012 among approximately 1 million participants ,2012

EXTRACURRICULAR ACTIVITIES

- Initiated the awareness drive on the importance of research in solving societal problems through Computer Science, 2015-Till Date
- Undertook initiative to spread Computer Science knowledge by giving periodic guest lectures to school children in remote areas such as I.T Next Generation School, Pathankot, 2014-Till Date
- Student Member - Association for Computing Machinery, since 2013
- Regular participant of Codechef.com(handle- OMA), Hackerearth.com, since 2012
- Volunteer at Rotary International: Contributed to several women and children educational initiatives supported by Rotary International at Pathankot, Punjab, August 2014-May 2015
- Campus Representative, Techfest, IIT Bombay, ,largest technical festival in Asia, 2013-2015