Pulkit Verma

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M.Tech. – Computer Science and Engineering
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Degree	Institute	CGPA/%	Years
M.Tech.	Indian Institute of Technology Guwahati	8.27	*2015*
B.E.	Shri Vaishnav Institute of Technology and Science, Indore	69.88	*2011*
XII	Modi Public School, Kota	73.20	*2006*
X	Oxford Junior College, Ujjain	88.80	*2004*

EXPERIENCES

Teaching Assistant, IIT Guwahati
Aug 2013 – (present)

Worked as a TA for Software Engineering, Computer Graphics and Data Structures Labs.

Assistant Systems Engineer, Tata Consultancy Services Ltd.
Mar 2012 – Jul 2013

Worked as an iOS Application Developer for a TCS client. Working in a team, we developed a Portfolio Analysis Tool for iPhone and iPad.

PROJECTS

Analysis of iVectors for Speech Recognition on low resource devices
Jun 2014 – (present)

Dr. P. K. Das

Aim: Speech generally involves parameters and features which involves high number of dimensions. I am working on application of iVectors to reduce the dimensionality. This approach will effectively remove the less relevant parameters/features. This can boost the performance of speech recognition on low resource devices.

Artificial Immune System Based "Dynamic Obstacle" Avoidance Robot
Feb 2014 - Apr 2014

Dr. S. B. Nair

Aim: A robot should learn to avoid the "dynamic obstacles" using the principles of "Clonal Selection" technique used in Artificial Immune System.

Concepts Used: Artificial Immune System (AIS), Clonal Selection, Affinity Measure for AIS.

Robot Cooperation Through Stigmergic Communication
Jan 2014 - Feb 2014

Dr. S. B. Nair

Aim: There are 5 set of tasks which are to be executed sequentially. There are 5 agents each of which can perform 1 task. The robots do not know how to perform these tasks. There must be cooperation between the agents which are downloaded on robots so that the tasks are executed in proper order.

Concepts Used: Stigmergic Communication, Ring and Star Network Topology.

HMM based Word Recognition System
Sep 2013 - Nov 2013

Dr. P. K. Das

Aim: To make a system which will take a spoken word as input at runtime and output the recognized word on screen in real time. The spoken word must belong to a predefined set of words.

Concepts Used: Hidden Markov Model, Vector Quantization, Durbin's Recursive Algorithm, k-Means Clustering Algorithm, Viterbi Algorithm.

Portfolio Analysis Tool
Nov 2012 - Jun 2013

Tata Consultancy Services Ltd.

Aim: This iPhone/iPad (Universal) application enables the customers of a TCS client to manage and customize their portfolio. Also it displays the investment in different market sectors in different groups of account in the form of customized bar graphs and pie charts.

Smart Analyzer
Jul 2010 - Apr 2011

Prof. Anand Rajavat

Aim: To make an application which analyses the patterns of access of websites through a proxy server. This system is useful for analysis of traffic on a proxy server providing internet access to various other systems in an organization. Given the fact that a website X is accessed from a system, the application can find the probability that a website Y will be accessed next.

Concepts Used: Apriori Algorithm, Data Mining.

Internet Cafe Monitoring System (LAN Monitoring)
Jan 2010 - May 2010

Prof. Anand Rajavat

Aim: To develop an application for operating a computer rental system that can help the owner with cyber cafe management, accounting and billing. The system administrator can monitor and record activity on all client computer systems. New user accounts with distinct rights can be created in the software program easily.

Concepts Used: Remote Method Invocation.

Save Her From Cancer
Sep 2009 - Apr 2010

Prof. Anand Rajavat

Aim: Developed a website to spread awareness about the various and most harmful cancers which can affect women.

TECHNICAL PROFICIENCY

- Languages: C/C++, Python.
- Database: MySQL, DB2
- Operating Systems used: GNU Linux, Windows, Mac OS.
- Tools: Eclipse, Visual Studio, Xcode, Rational Rose.

CERTIFICATIONS AND TRAINING

- IBM Certified Database Associate - DB2 Universal Database V9 Family.
- Undertook a two week industrial training at Center of Excellence, SVITS, Indore on Use Case Modeling and Analysis.

ACHIEVEMENTS

- Won **TCS ILP Kudos** Award for my performance during ILP (training) at TCS.
- Won the 1st prize for **Project Phoenix** (A Linux based project for deploying and configuring a server) during the technical festival Phoenix-2009 held at IET-DAVV, Indore.
- Won the 2nd prize for **CoderZ** during the Eminence-2010 held at SVITS, Indore.

RELEVANT COURSES

- **M.Tech.**: Speech Processing, Mobile Robotics, Parallel Algorithms, Learning with Kernels.
- **B.E.**: Artificial Intelligence, Soft Computing.
- **Online:** Introduction to Computer Science and Programming Using Python (MITx).

POSITIONS OF RESPONSIBILITY

Volunteer, National Workshop on GPU Programming and Applications (GPA3-2014), IIT Guwahati   *Sep 2014*

Assisted workshop participants in solving technical problems during the workshop.

Point of Contact, Training and Placement Cell, IIT Guwahati   *Dec 2013*

Coordinated the complete placement process of a few companies in Placement Session 2013-14.

Organizing Committee Member, Quizorama, SVITS Indore   *May 2010*

Managed all the technical aspects during intra college Quiz Contest "Quizorama".

EXTRA CURRICULARS

- Participated in Cluster Level Table Tennis Tournament conducted by CBSE as a member of U-14 School Team.
- Runner-up of National Level Painting Competition Kartab-2002 conducted by Kalavart Nyas.
- Consolation Prize in National Level Painting Competition Hunar-2002 organized by Manav Sanket Academy, Ujjain.
- Was awarded the title of Prof. Maths for my performance in Prof. Maths Contest 2002-2003 conducted by National Educations.
- Was awarded High Distinction in the Junior Division of 2003 Australian National Chemistry Quiz conducted by Royal Australian Chemical Institute.

PERSONAL PROFILE

- **Date of Birth**: 25th April, 1989.
- **Father's Name**: Mr. Yogesh Kumar Verma.
- **Mother's Name**: Mrs. Geeta Verma.
- **Interests**: Blogging, Reading books, Trekking.
- **Strengths**: Optimistic, Innovative, Adaptable.

(References available on request)