Parit Bansal

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Objective

My fascination in computer science is Algorithms with a wide area of applications such as Internet, Life Sciences. My objective is to dig deep in the field of Computer Algorithms, AI, Distributed Computing and apply these concepts in solving real world problems

Areas of Interest

- Computer Algorithms
- Distributed Computing and Web Services.
- Computational Biology

Education

UnderGraduation	XII standard	X standard
B.Tech, ICT (passing year 2007) CPI: 2.92/4 (79%) (Aggregate) CS Major: 3.15/4 (83%)	AISSCE (passing year 2003), Asha Modern School %: 79.8%	AISCE (passing year 2001) D A V Public School % **:** 87.4%

Relevant Course Work in UG

Technical: Computer Algorithms, Distributed Computing, Grid Computing, Discrete Mathematics, Object Oriented Programming, Security Protocols, Computer Networks, Operating Systems, Data Structures and Algorithms, Structured Programming, Software Engineering, Compiler Design, Calculus and Complex Variables, Probability and Statistics, Linear Algebra and Matrices.

Open: Knowledge Society to Knowledge States, Elements Of Business Management, Animal Vegetable Mineral and Thing, Science Technology and Society.

Major Academic Projects

1. B-Tech Project 20073

Supervised By: Prof. Manish K Gupta

Title: Novel Representation For Pseudo-knotted RNA Secondary Structures

Abstract: Classification of RNA secondary Structures has been achieved using different approaches but all these approaches either do not describe the structure in detail or exclude pseudo-knotted secondary structures. In this project we propose a new representation for RNA secondary structures that includes pseudo-knotted structures using a Graph Theoretic Approach and takes into account all the relevant information from the structure, hence being more descriptive and much better for comparative analysis. We have successfully applied this representation to most of the structures listed in the standard databases like Pseudo base and the Nucleic Acid Database. We have also written a Cost Matrix for comparing the graphical representations.

2. Solving TSP problem using Java RMI (Distributed Computing)

The project aimed at solving TSP using simulated annealing meta-heuristic algorithm in a distributed environment over JAVA RMI

| Language: **JAVA RMI** | Solo Project | Status: Completed

3. Solution for Retail Outlet Chains

The project aimed at providing a solution to the retail outlet chains for their inventory management, value added services like door delivery, slab discounting and online ordering.

| Language: **J2EE, JDBC, SQL, XML** | Team: 10 | Role: Project Lead |

4. Lab Problem Reporting and Tracking System

A complete solution for sizing up the efficiency of engineers at work and improving problem reporting system in case of Lab instruments which was done manually.

| Language: **JAVA SQL** | Team: 2| Status: Completed

5. Password Wallet

A solution for having a single wallet for maintaining all the email addresses and corresponding passwords to keep the user from the hassle of remembering them all. Also it generated strong passwords for the user to assign to new accounts.

| Language: **JAVA** | Team: 2| Status: Completed

Internships

Industrial Internship:

Reliance Infocomm, DhiruBhai Ambani Knowledge City, Mumbai, Maharastra India

6 weeks internship included creating an Animation Editor from conception till implementation for various models of Reliance India mobiles. Idea was to provide user the ability to draw, store and send animation movies. This was done at DAKC – R&D headquarters of India's largest mobile telephony provider. It included J2ME and J2EE implementation.

Research Internship:

DhiruBhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat, India

2 months long Research Internship was done under the mentorship of Prof. Ashok T Amin. The aim of the research was to learn the fundamentals of "Graph Theory".

Rural Internship:

Bhasha Kendra , Panch Mahal , Gujarat, India

The aim of the internship was to do a survey of denotified tribes in the rural and backward areas of PanchMahal District in Gujarat. It also aimed at giving a glimpse of rural India at large, its problems and role of ICT for solving its problems.

Publications:

1. Parit Bansal and Sauhil Kansal: A Novel Representation for RNA Secondary Structures Including Pseudoknots. B Tech Project Technical Report DA-IICT 2007.

2. Parit Bansal, Sauhil Kansal and Manish K Gupta: Prediction of possible missing Pseudo-knotted structures. (in process of submission)

Current Employer and Responsibilities/ Projects.

Currently working as a **Software Engineer** at Taxila Lab Info Service Pvt. Ltd. Bangalore, India. Responsibilities include complete ownership of modules covering design, development, testing, profiling and maintenance.

Major Projects:

1. Work at Taxila is mainly the development of a content discovery engine that could render results to various information devices. I have the ownership of voice engines (IVR and ASR). I have also contributed in the development of WAP and WEB component engines. Technologies involved are J2EE, Struts, XSLT, Javascript, DHTML, XML, VoiceXML Ajax etc.

2. Development of a Test framework to provide validation testing to the various engines of the Discovery Engine. Technologies involved are Grinder (an open source regression testing tool), ANT, Tomcat etc.

Other Associations:

Associated with Gupta Labroatory of Natural Information Processing, Gandhinagar as a researcher.

Skills

Languages:	Proficiency: Java, SQL, Shell Script, SQL, JSP
	*Familiarity***:** C, HTML, XML, JSP, Struts, XSLT, XHTML, JS, ANT, VXML
Tools:	Eclipse, JEditor, Latex, MS Office, Apache Tomcat, Grinder
OS:	Comfortable with Linux and Windows environment.

Personal Achievements:	**International Biomedical Modelling School and Workshop 2008**	Won a full scholarship to attend this workshop, to be organized by National Centre for Biological Sciences, Bangalore, India.
	Eureka 2007	Our team was awarded the "**Best Student Team**" award at the International Business Plan competition organized by IIT Mumbai. The implementation of this business plan can be seen at www.tempostand.com
	Microsoft Imagine Cup 2006	My team got listed among **Top 50 teams out of 5000** from across the country in this International software design competition. It has our entry as "**Intelligent Medical Diaries**".
	ICTian	This is college's e-magazine that was started by us in our campus.
	Rhubarb	In 2005 participated and reached the finals of college debate competition and then coordinated the event in 2006.
	Synapse	DA-IICT's Annual Techno-Cultural Festival where I worked as an active member in 2004 and 2005 and then as a member of the Public Relations team in 2006.

Declaration: The above information is correct to the best of my knowledge.

Parit Bansal