# SHIKHAR KUMAR GUPTA

G-111, HOR (Men), DA-IICT, Gandhinagar, Gujarat 382007, India | gupta.shikhar@hotmail.com . shikhar_gupta@daiict.ac.in
**Webpage:** http://guptalab.org/shikharg

## EDUCATION

Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat, India
**[B. Tech. Information and Communication Technology]**                              **2010-present**
- CGPA till Sem-7: 6.93/10

Class XII **[SJS Public School, RaeBareli, UP, India]**
-Percentage: 81.0                                                                                              **2009**

Class X **[Dayawati Modi Public School, RaeBareli, UP, India]**
-Percentage: 87.6                                                                                              **2007**

## SKILLS

**Computer Languages:** Java, C, Scala, HTML5, CSS, JavaScript, Postgre SQL
**Tools:** Eclipse, PGAdmin III, Intelli J IDEA, Adobe Flash, Photoshop
**Bioinformatics Tools:** Cadnano, Cain, Visual DSD, DNA Pen, 3DNA

## TECHNICAL ELECTIVES

Introduction to Algorithms, Introduction to Biotechnology, Coding theory and Applications, Natural Computing, Database Management System, Operating Systems, Computer Graphics, Introduction to Web Programming.

## COMPUTER SCIENCE PROJECTS

- **Acclivia-Grow with Groups |Guide: Dr. Asim Banerjee (DA-IICT)**
  A semester project on Software engineering- the aim of this project was to develop a teamwork communication manager. The interface offers to-to lists, project timeline, file sharing, virtual meeting and a messaging system. I was the core-developer for the user interface of the project and developed the message passing interface for the

- **DA-IICT Files Catalogue| Guide: Dr. P. M. Jat  (DA-IICT)**
  A Database Management System for a peer-to-peer file sharing software with IMDB like features e.g. (requesting new files, ratings, comments etc.). I was involved in the design and implementations of the database, relevant queries, triggers and console integration.

- **Wildlife Tracker Device| Guide: Dr. Sanjay Chaudhry  (DA-IICT)**
  Designed a client-server implementation for a tracker device that connects to a server and sends information and files along-with real time message passing.

## NATURAL COMPUTING PROJECTS

- **DNA Pen- A tool for drawing on a molecular canvas | Guide: Dr. Manish Gupta (DA-IICT)**
  A software developed at the Laboratory of Natural Information Processing ( Gupta Lab at DA-IICT), which provides a user-friendly interface to aid scientists in creating 2D shapes at the nanoscale.
- **3DNA- A tool for DNA Sculpting | Guide: Dr. Manish K Gupta (DA-IICT)**
  3DNA is a software suite that can be used to model/visualize complex shapes using single stranded DNA bricks. The software also has an integrated sequence generator which provides the DNA sequences corresponding to the shape designed.

## INTERNSHIPS AND EXPERIENCE

- **Research Internship | Dr. Manish Gupta (DA-IICT) | May-June, 2013**
  A two month internship to get familiarized with the concepts of research in computational biology, specifically molecular programming and self-assembly of single stranded DNA strands

- **Rural Internship | Dr. Ganesh Devy (DA-IICT) | December, 2011**
  An internship serving and understanding the problems of rural folk under the Lupin Human Welfare and Research Foundation (LWHRF)

- **Teaching Assistant to Professor Shiv Visvanathan |May -June 2012**

## ACHIEVEMENTS AND SCORES

- Software 3DNA was selected for poster presentation at the FNANO14 conference, Duke University, USA
- Software DNA Pen was selected for poster presentation at the DNA19 conference, Arizona State University, AZ, USA
- Interface Design selected as Top 5 entries in I.Design contest at I.Fest 2010 (Annual Technical Festival) DA-IICT
- Member of the class Badminton Team

## RESEARCH INTERESTS

- Natural Computing
- DNA self-Assembly, secondary structure formation and hybridization
- DNA strand displacement and Chemical reaction networks

## HOBBIES

Watching TED Talks, learning new tools and technologies, participating in online discussions, playing badminton, travelling and bird watching

## REFERENCES

- **Professor Manish K. Gupta**
  Professor, DA-IICT, Gandhinagar, Gujarat, India
  **Email**: mankg@computer.org
  **Webpage**: http://www.mankg.com
  **Lab:** http://www.guptalab.org