

OBJECTIVE

To get valuable learning experience and know how of the applications of my field in real life and to build my skills through a respectable job and higher studies.

QUALIFICATION

- BS BIOINFORMATICS, 2005-2009

COMSATS Institute of Information Technology (CIIT)

Cumulative GPA: 3.48/4.00

- Online Course in Pharmaceutical Bioinformatics from Department of Pharmaceutical Biosciences, Uppsala University, Sweden.

PROFESSIONAL EXPERIENCE

- Research Associate at COMSATS Institute of Information Technology, Nov 2009 - Present
Project: "Comparative Computer Analysis of Promoter Architecture and Expression Patterns of Plant Genes"
- One month Internship at NCVI-NUST, Aug 2008 – Sep 2008

AWARDS

- Secured Campus Silver Medal for attaining 2nd Position in BS-Bioinformatics
- Secured scholarship for attaining 2nd Position in 3rd Semester
- Secured scholarship for attaining 2nd Position in 1st Semester

SKILLS SUMMARY

DEVELOPMENT:

Skill Level_Intermediate-Expert:

- C
- C++
- Java

Skill Level_Beginner:

- Perl
- Python

BIOINFORMATICS SKILLS:

- Sequence Alignment,
- Gene Analysis,
- Protein Analysis,
- Phylogenetic Analysis,
- Restriction Analysis,
- Primer Designing

OTHER SKILLS:

- DNA extraction,
- PCR,
- PAGE,
- Chromatography,
- Bacterial isolation and growth techniques

PROJECTS

FINAL YEAR PROJECT

Finding Dimerization Domain in CrhR RNA Helicase Using Bioinformatics Techniques: Employed various bioinformatics techniques and tools in order to find the dimerization domains present in the C-terminal region on CrhR RNA Helicase with a special focus on HERA RNA Helicase.

SEMESTER PROJECTS

- Genome Annotation (Bioinformatics): Obtained an environmental sequence and used bioinformatics techniques to annotate it.
- Biofuels; A comparative analysis (Literature Search): Studied the composition of various biofuels to find the most efficient one. Biofuels obtained from E. coli were specifically studied along with the genes and pathways involved in their production.
- Blue Brain Research Project (Modeling and Simulation): Conducted an extensive research on the general and biological perspective of the blue brain project for the term.
- Protein sequence search tool (Bioinformatics): Developed a tool, using Visual C++, to search for a particular type of protein in the genome of an organism.
- Analysis of viral suppressors (Bioinformatics): Studied the B2 Protein of the Flock House Virus, analyzed it to find conserved domains and predict their possible role in its mode of action.
- Designed Mario Brothers (Object Oriented Programming): Designed and programmed Mario Brothers, using Visual C++ and basic OpenGL.

- Library Management System (Data Structures): Developed a Library Management System for the course of Data Structures using C++.

RESEARCH INTERESTS

The use of Information Technology to support the advances and knowledge obtained from different experiments and analysis is the key to faster, more economical research. Bioinformatics in particular deals with use of information technology in technology. As a student of bioinformatics, I was introduced to different aspects of this field during my Bachelors degree.

The multi-disciplinary characteristic of the approaches used in this field have since held my interest.

In particular my interest developed in Structural and Analytical Bioinformatics as a result of my exposure to different research projects and opportunities. My Bachelors Project, titled "CrhR RNA Helicase Using Bioinformatics Techniques" was mostly concerned with protein structural analysis where I employed various bioinformatics techniques and tools in order to find the dimerization domains present in the C-terminal region on CrhR RNA Helicase.

Getting hired in a project titled "Comparative Computer Analysis of Promoter Architecture and Expression Patterns of Plant Genes" also engendered an interest in analysis of sequence in order to find meaningful information. Both these fields have a lot of potential as the data being generated and needs to be analyzed is increasing exponentially with each new advancement in experimental techniques. Understanding of this data is crucial to commercial and especially medical developments which may seem implausible at this point in time.

I would like to explore both these fields in future and hope to make significant contributions towards scientific development.

ACTIVITIES

- Active participant of various events at school
- Sports Captain of my house at college.
- Direction of the winning drama for a drama competition held at Bio Department of CIIT in 2006.
- Active member of Organizing Committee of different events at university.
- Took the Para gliding course arranged by the University in 2007.
- Also interested in Hiking and Traveling, Long road trips, Book reading.