

Anum Umar

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## OBJECTIVE

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To be part of such an organization wherein my knowledge and skills will be further developed to be globally competitive in the fields of research and computation.

## RESEARCH INTERESTS

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By far, the greatest impetus that has driven me to bioinformatics is its diversity. Bioinformatics encompasses a variety of disciplines i.e. biology, computer, Information Technology and statistics. Having acquired adequate knowledge in bioinformatics, I am on my way to develop my research capacity as well. My research experiences also come from preparing my B.S. thesis on the Computational Prediction of Polyadenylation Sites in Arabidopsis genome. Moreover, my current job as a research Associate at COMSATS Institute of Information Technology adds to my research experience. Both these experiences were under the guidance of two finest scientists Prof. Dr. Raheel Qamar (TI) and Prof. Dr. Ilhaam Shahmoradov who have exerted a defining influence over my academic interest.

My research interests in the areas of bioinformatics are primarily sequence analysis and development of novel bioinformatics tools that can solve many biological problems as well as assist other researchers in their research. I would like to keep doing research work at the highest level and hope to share it with my country so that it may help to accelerate the current rate of technological progress and improve the prospects of the people here.

## QUALIFICATION

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BS-Bioinformatics      2007-2011,  
COMSATS Institute of IT,  
CGPA 3.56/4.00

## PROFESSIONAL EXPERIENCE

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Research Associate at COMSATS Institute of IT, May 2011-present.

## PROJECTS

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### Final Semester Project:

“Computational prediction of Polyadenylation sites in Arabidopsis genome”, which resulted in the development of tool named Pparf which is the best available tool for the polyA site prediction in Arabidopsis and shall soon be available online.

### Semester Projects:

- Prepared an introduction about map viewer, available at Birec (<http://birec.org/node/395>).
- Annotating an environmental sequence by applying numerous bioinformatics techniques.
- Developed codes for FASTA for the whole genome file, ORF prediction, isocore prediction using oligomer frequencies.
- Made a statistical analysis of socio-economic conditions of students studying at COMSATS as semester project under "Statistical methods in biology" course.

## BIOINFORMATICS SKILLS

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- Sequence annotation
- RFLP, SNP analysis using various softwares
- Primer Designing
- Gene analysis

## COMPUTER SKILLS

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- Worked in C / C++, C#, Java.
- Expertise in Perl and python.
- Expertise in HTML, MySql.

## OTHER SKILLS

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Know how of tools and technologies of modern biology lab including DNA extraction, agarose gel preparation & PCR.

#### ACTIVITIES

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- Member of student council at school.
- Fond of electronic games.
- Member of baseball team at school.
- Interested in travelling.