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AFRAH SHAFQUAT

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EDUCATION

Massachusetts Institute of Technology (MIT)

Cambridge, MA

Candidate for S.B. in Biological Engineering

GPA: 4.0/5.0

June 2012

- Relevant coursework: Biomolecular and Analytical Cell Dynamics, Molecular Cell Biology, Biochemistry, Genetics, Laboratory Fundamentals in Biological Engineering, Organic Chemistry II, Thermodynamics of Biomolecular Systems, Organic Chemistry I, Introductory Biology, Neuropharmacology, Undergraduate Practice Opportunities Program.

EXPERIENCE

Undergraduate Research Opportunities Program (UROP), Whitehead Institute

May 2010-Sept 2010

UROP Student

- Worked in David Sabatini's lab to research the mTORC1 signalling pathway linked to cancerous growth. .
- Responsible for discovering the domains on the Rag GTPases in Rag/Rag and Rag/other proteins interactions.
- Researched the potential detergents to be used for perturbing the Rag heterodimer interactions.

Undergraduate Research Opportunities Program (UROP), MIT

Dec 2009-March 2010

UROP Student

- Work in Laboratory of Computational Biology and Biophysics to research the process of chromosome congression in oocytes.
- Responsible for establishing a reliable way of automatically extracting tracks from 3D movies of chromosomes using MATLAB
- Research for finding patterns in the actin formation or motion during the process.

Information Services and Technology (IS&T), MIT

Jan 2009-Present

Student Consultant

- Provided front-line consulting services in the Client Support Services area of IS&T to students, faculty and staff of MIT.
- Collaborated with the Staff Consultants in a team-oriented environment to devise solutions for the clients.

IAP Research Mentor Program (IRMP), Hammond Lab

Jan 2009

UROP Mentee

- Worked with a mentor, studying controlled release of drug delivery methods through degradable polymer films.

Tech Callers, MIT

Sept 2008-Jan 2009

Tech Caller

- Contacted the MIT Alumni and parents to solicit gifts and donations for the Alumni Fund.
- Collaborated with the fellow Tech Callers in exchanging techniques to further donation.

MIT ESP SAT Program

Sept 2008-Jan 2009

Math Teacher

- Taught SAT I Math to High School students, using the techniques used in achieving higher scores in SAT.
- Shared personal experience, tried to have them start thinking about their futures and the opportunities that they could pursue.

LEADERSHIP

TechFair, MIT

2009-Present

Exec Member, Corporate Relations

- Contacted companies that offer new/creative technologies and encouraged to showcase them in the MIT TechFair, which is held in early spring. Guided interested companies through the process of registration.

PaksMIT, MIT

Sept 2009-Present

Vice President, Executive Committee

- Organized cultural events like, Chand Raat and Eid Social for Pakistani students at MIT.
- Discussed and formulated a plan for Fall 2009 and early Spring 2010 Events with the PaksMIT Executive Committee.

CIO WebStudio, ITCN Asia, Pakistan

Aug 2009

Volunteer

- Interviewed CEOs, Programmers, Bloggers, HR Managers, Vice Presidents, company representatives at the Information Technology Commerce Network Asia 2009 (ITCN) - an exhibition to expose Pakistan's technical community to modern technologies and leading companies in the fields of IT and Commerce.

Summit Educational System, Pakistan

Aug 2009

Speaker, Career Day

- Led a two day seminar on Career Development and the University Application process, to help the high school students in Pakistan, achieve their near futuristic goals they aspire to achieve.

Sindh Institute of Urology and Nephrology, Pakistan - Volunteer

Dec 2006-May 2008

ACHIEVEMENTS

- 5th NCR National IT Excellence Award 2005
- Microsoft Certified VB.Net Programmer (age: 12 yrs) 2003
- Sun Certified Java Programmer (age: 11 yrs) 2002

SKILLS

Computer: Language - Python, Java, VB.Net, C#, MATLAB, HTML; Software - Visual Studio.Net, MS Office, Windows, MAC OS

Languages: Fluent in English, Urdu; Conversational in Hindi