Pinaki Bose | Resume

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Education

Degrees and Diplomas

- M.S. Chemical Biology from Johns Hopkins University Chemistry-Biology Interface 2015
- B.S. Biochemistry Honors (3.89/4.00 GPA) and minors in Mathematics and Biology in 2 ½ years of study from the University of Texas at Arlington. Premedical requirements fulfilled. Dec 2011
- B.S. Chemistry (3.90/4.00 GPA) from the University of Texas at Arlington. May 2012
- High school diploma (4.73 GPA) from Robert L. Paschal High School May 2009

Standardized Exam Scores

- MCAT: 14 Physical; 12 Biological; 10 Verbal; 36Q Total Sep 2011
- GRE: 800 Quantitative; 610 Verbal; 1410 Total Jun 2011

Awards and Honors

- Honorable Mention, 2015 NSF Graduate Research Fellowship Program Mar 2015
- Honorable Mention, 2014 NSF Graduate Research Fellowship Program Mar 2014
- Cancer Research Training Assistantship Postbaccalaureate Fellowship (NCI/NIH) Sep 2012
- Cancer Research Training Assistantship Summer Internship (NCI/NIH) Jun 2012
- Summer Undergraduate Research Fellowship (UT Southwestern Medical Center) Jun 2011
- UT Arlington College of Sciences Dean's List for Academic Excellence Sep 2012
- UTA Chemistry/Biochemistry Society Research Symposium Second Place Winner Sep 2011
- University Scholar Award (Top 1% of student body) Apr 2011
- Dennis S. Marynick Scholarship for outstanding physical chemistry research Apr 2011
- Robert F. Francis Award for Outstanding Sophomore (awarded Freshman year) Apr 2010
- **University of Texas at Arlington Academic Scholarships:** UTA Academic Enhancement Scholarship 2010–2011; UTA President's Science Fair Scholarship 2009–2011; UTA President's Charter Scholarship 2009–2011; UT System Top 10% Scholarship 2009–2011; UTA Computer Science and Engineering Stipend 2009–2010

Research Experience

National Cancer Institute (NCI/NIH) Postbaccalaureate Fellow 2012–2013

- Member of the NCI High-Resolution Electron Microscopy Core under Dr. Sriram Subramaniam
- Stuctural biology and single-particle analysis of proteins (β-galactosidase)
- Focused Ion Beam Scanning Electron Microscopy and high-resolution 3D cellular imaging

National Cancer Institute (NCI/NIH) Summer Intern Summer 2012

- Researcher, Laboratory of Receptor Biology and Gene Expression, under Dr. Daniel R. Larson
- Coregulation of E2-responsive genes in human breast cancer cells
- Fluorescence *in-situ* Hybridization (FISH), high-throughput fluorescence microscopy

Summer Undergraduate Research Fellowship (SURF) Program Summer 2011

- Research fellow in the Graduate School of Biomedical Sciences, Department of Pharmacology, at the Univeristy of Texas Southwestern Medical Center under Dr. Melanie H. Cobb
- Pharmacological study of coregulation between AMPK and ERK in mouse pancreatic islet cells

Computational Chemistry Research with Dr. P. Kroll 2009–2012

- Computational study of optoelectronic properties of gallium nitride nanocrystals
- High-performance computing and quantum mechanical calculations using VASP and PBS
- Part of this work supported by the UTA Honors Undergraduate Research Assistantship (URA)

Indo-US Joint Center on Biomaterials for Health Care 2009–2010

- Materials science researcher at Shaping Concepts, LLC and member of Indo-US Joint Center
- Collaboration with the Indian Institute of Technology, Kanpur (India)
- Design and fabrication of HDPE-HAp-Al_2O_3 composites for possible use in bone implants

Teaching Experience

Teaching Assistant for Organic Chemistry I & II **2014–2015**

- I led a section of 15 students providing supplementary instruction to the course
- Introduced new topics, reinforced topics from main course, and graded submitted work

Teaching Assistant for General Chemistry I **Fall 2011**

- I taught a freshman chemistry lab of 20 students and recieved excellent student reviews
- Provided instruction for each experiment, supervised experiments, and graded submitted work

Tutor at the UT Arlington Chemistry Clinic **Spring 2011**

- I worked 4 hrs/wk as a general/organic and advanced chemistry tutor

Tutor for University Tutorial Service **2010–2011**

- I served as a chemistry tutor on a per-appointment basis.

Outreach

Science Fair Judge and Webmaster **2011–Present**

- Designed and maintain the Fort Worth Regional Science and Engineering Fair's website
- Served as a judge for the science fair; assessed scientific merit of high school level projects (2012)

Science Fair Project Mentor **2011–2014**

- Directed three students (grades 6–12) through original scientific research
- All three won special awards at the Fort Worth Regional Science and Engineering Fair (FWRSEF) and the ExxonMobil Texas Science and Engineering Fair (EMTSEF)
- All three won prizes in their category (bioengineering, mathematics, and environmental science)

Publications

- Basu, B., Jain, D., Kumar, N., Choudhury, P., Bose, A., Bose, S. and **Bose, P.** (2011), Processing, tensile, and fracture properties of injection molded HDPE-Al_2O_3-HAp hybrid composites. *J. Appl. Poly. Sci.*, 121:2500–2511. (peer-reviewed)
- A. Bose, **P. Bose**, I. Otsuka and T. Kadomura. Granulated Particulates: A Novel Approach for Processing Near-Full-Density Parts by Conventional Pressing and Sintering. Proceedings of the 2008 World Congress on Powder Metallurgy and Particulate Materials (2008)

Interests

- **NIH Postbac Committee Chairman** Jan–Aug 2013
  The NIH Postbac Committee is a group of postbaccalaurate fellows that arranges a wide variety of community outreach and social events for NIH fellows and summer interns.
- **Founding Secretary for UTA Linux Users Group (LUG)** 2011–2012
  As cofounder and secretary of the LUG, I was instrumental in the formation of the group and for bringing membership to 50+ in one semester. Our aim is to raise awareness of software freedom.
- **Public Relations Officer for the UTA Medical/Dental Preparatory Association** 2011–2012
  I advertize MDPA to students as well as to possible speakers who present at our weekly meetings. My efforts led to an increase in membership and an increase in profit from membership fees.
- Pianist and performer for Antorik Bengali Association, Rhythm Cultural Association, and the Bengali Association of Dallas/Fort Worth (BADFW). 2009–2012
- **Freelance Web Development** 2006–Present
  I have designed several websites, including my own (`http://pinakibose.com/`) and for local businesses (`http://mpi-pim.com/` and `http://flowersbysuzann.com/`). I am also webmaster and designer for the Fort Worth Regional Science Fair (`http://fwrsef.org/`).

Additional Skills

- Programming language mastery: bash/csh/sh, bc/dc, awk/sed, Java, C/C++, PHP5, HTML4, CSS3, jQuery/JavaScript, SQL, LaTeX, TeX, Matlab, python3
- Software/OS Proficiency: Linux (Debian and Arch Linux), Microsoft Office, GIMP, Inkscape, VASP, CrystalMaker, Apache, Emacs