

NAME, EMAIL address etc

EDUCATION	<p>Public IVY League 3rd in Mech. Engineering, August'2015 <i>Doctor of Philosophy in Mechanical Engineering</i> GPA: 3.7/4.00 Semi famous lab. Joint project with two other labs</p>
	<p>State University, good in engineering department, April'2012 <i>Master of Science in Mechanical Engineering and Electrical Engineering</i> GPA:3.9/4.00</p>
	<p>Indian Institute of Technology(IIT) 3rd ranked in India, India <i>Bachelors of Technology in Mechanical Engineering</i> GPA:7.55/10 <i>Masters of Technology in Mechanical Engineering</i> GPA:8.33/10</p>
EXPERIENCE	<p>Public IVY League 3rd in Mech. Engineering, <i>Graduate Research Assistant</i> June'2010-Present</p> <p>Ultra-low protein detection assay</p> <ul style="list-style-type: none"> • Developed MEMS-based fabrication process flow to manufacture a massively parallelized (~5 time higher compared to closet technique available) "ultra-low protein concentration" detection assay which requires no external power source, is robust and easy to use • Collaborated with colleagues to debug and optimize performance of device. <p>Two-dimensional Microscale gas chromatography</p> <ul style="list-style-type: none"> • Building design guidelines and new design for a 2nd generation thermal modulator(TM) with a target of ~200% improvement in peak capacity (theoretical number of compounds that can be detected using our thermal modulator), to detect trace level compounds necessary in explosive detection, bio-hazards, forensics, petrochemical industry etc. • Developing simplistic models to understand impact of cold-spots, geometry and isotherms, and augment 1st generation model so as to reduce deviation between experiment and theory • Designed and performed experiments using our TM to validate model • Researched existing gas chromatography models, and proposed 1st physics based model to explain the thermal modulation process • Debugged and developed novel silicon-MEMS based fabrication technique to manufacture our TM chip and improved yield by ~60% • Demonstrated 1st two-dimensional gas chromatography of a complex chemical mixture using our ultra-low power (~2% power consumption compared to conventional systems), highly reliable and portable 1st generation TM (smallest, most reliable and least power hungry compared to other TMs in literature) • Proposed novel ideas to increase peak capacity using our TM by ~ 200%, and helped write proposals to obtain funding from NSF and Agilent <p><i>Teaching assistant</i> Aug'2012-Dec'2012</p> <ul style="list-style-type: none"> • Instructed, guided and mentored ~ 200 students as part of 3 person team of teaching assistants, working under a senior professor. • Supported team dynamics and resolved intra-team and inter-team conflicts • Monitored team performance using regular performance evaluations and provided feedback to individual members or teams on how to improve their performance • Provided clear line of communication between professors and students, when necessary <p>State University, good in engineering department, Semi famous lab. <i>Graduate Research Assistant</i> Aug'2008-Jun'2010</p> <p>Focused ion beam fabrication process</p>

	<ul style="list-style-type: none"> • Worked with group at UIUC to develop hypothesis behind the novel environmentally benign “Focused ion beam fabrication” process and developed 1st electrochemical model to explain it. • Studied characteristics of Nafion-membrane under experimental conditions available in literature and extrapolated it to our experiments • Provided regular updates through teleconferences and presentations to collaborators at UIUC regarding progress of my side of the modeling, and experimental conditions <p><i>Graduate Teaching Assistant</i> Aug’2009-Apr’2010</p> <ul style="list-style-type: none"> • Instructed, guided and mentored ~ 60 students . • Worked with a difficult and high-in-demand lab technician to resolve problems in 3D CNC machining, and complete labs under very strict deadlines • Developed and iteratively improved over the course of a year, a new experimental process flow handbook to reduce confusion among students regarding the laboratory experiments <p>Best graduate University, Famous prof, Bangalore, India <i>Research Intern</i> May’2007-Aug’2007</p> <p>One of the best research insitutes, Bangalore, India <i>Research Intern</i> Dec’2006</p> <p>Big Brand name US based Research center, India <i>Research Fellow</i> May’2006-Aug’2006</p>
PUBLICATIO NS	<p>Journal Papers</p> <ul style="list-style-type: none"> • First author, Sensors and Actuators B (under construction) • Joint author, 3 other collaborators, J. Chrom. (under construction) • Second author, two other collaborators. Biophysics, J • Joint author, 3 other collaborators, Anal. Chem. • 4th author , lot of collaborators Electrochem. Solid-State Lett • First author J. Phys.: Conf. Ser • First author of Applied Physics Virtual Journal of Biological Physics Research • Second author Journal of Physics. D, Applied Physics, <p>Conference Papers</p> <ul style="list-style-type: none"> • Second author. Engineering Society Annual Meeting. Atlanta, GA. (October 24-27, 2012). • Second author, Biophysical Society Annual Meeting. San Diego, CA. (February 25-29, 2012). • First author, IEEE MEMS Conference, Paris France, January 29-February 2’2012 • First author Wireless Integrated Microsystems Industrial Advisory Board Meeting,(Fall’2010, Winter’2011, Fall’2011, Winter’2012, Fall’2012) • Fourth author, NSF Engineering Research and Innovation Conference, Honolulu, Hawaii, June 22-25’2009 • First author, 121st Annual Meeting of the Iowa Academy of Science, Friday and Saturday, April 17-18’2009 • Second author, IEEE Conference on "Emerging trends in Electrical Technology" Kolkata 2006 • First author, International Symposium on Vacuum Science and Technology, November 28-30, 2007
AWARDS	<ul style="list-style-type: none"> • 2nd position in “China Entrepreneurship Network” Case competition (top 5%) • Finalist in Entrepreneurship competition (top 1%, actual participation was ~ 5000 submissions) • Ranked 660 in IIT-JEE (2003) amongst over 250,000 applicants (top .2%). • Received Merit certificate for National Science Olympiads

	<ul style="list-style-type: none"> • Reviewer for “Transaction on Industrial Electronics” • Fellowship to attend “ASME Global Congress on NanoEngineering for Medicine and Biology • Fellowship to attend “IEEE MEMS” conference from University and IEEE • Best Intern Award from Big Brand name US based Research center • Among top 5% of application pool and offered Departmental Fellowship on admission to Public IVY League University(ranked 3rd in Mech. E.) • Fellowship to attend graduate school, big name Private school (ranked 5th in Mech. E.)
LEADERSHIP	<p>Board member and active member of Backpacking Club Aug’2012-Current</p> <ul style="list-style-type: none"> • Initiated plan, negotiated with suppliers and increase amount of gear available to club members by ~ 100% in one year. • Lead trips to Pictured rocks, Guadalupe, Yellowstone, & Peabody Ice Climbing • Increased club membership and retention by ~150% by publicizing club across Facebook groups, streamlining online presence, and organizing social events • Consolidated multiple websites and worked with other board members to rewrite constitution and develop structured guidelines for organizing trips to reduce confusion <p>Receptionist and resident at cooperative council, which houses people from various nationalities and cultures. Aug’2010-Current</p> <ul style="list-style-type: none"> • Helped solve issues with residency, provided guidance to student and parents over phone and in person when necessary <p>Graduate society treasurer and social chair Aug’2013-Current</p> <ul style="list-style-type: none"> • Acted as the point of contact between organization and the finance department of University. <p>Coordinated funding application, researched and increased funding by 50% for our club</p>
ACTIVITIES	<p>Graduate Consulting club member Aug’2013-Current</p> <p>Ballroom team member, and participant in multiple competitions Aug’2012-Apr’2013</p> <p>Engineering Graduate Symposium organizing committee Aug’2012-Dec’2012</p> <p>inter-IIT table tennis team member (undergraduate) Aug’2006-May’2007</p>
LANGUAGES	Fluent in English, Bengali and Hindi
SKILLS	MATLAB, COMSOL, Microsoft Office, AutoCad, SolidWorks