

SIVA NALLA

902 N. Linview Ave | Urbana, IL 61801 | snalla2@illinois.edu | (630) 212-8402

EDUCATION

- University of Illinois at Urbana-Champaign, College of Engineering** August 2019 – Present
PhD in Bioengineering, Bio, Micro, and Nanotechnology
GPA: 4.00/4.00
- University of Illinois at Urbana-Champaign, College of Chemical Sciences** August 2017 – May 2018
Masters of Science Teaching Chemistry, Chemistry
GPA: 3.96/4.00
Awards: CITL Graduate Teaching Certificate
- University of Illinois at Urbana-Champaign, College of Engineering** August 2007 – May 2011
Bachelors of Science, Materials Science Engineering
GPA: 3.68/4.00
Minors: Bioengineering and Chemistry
Honors: James Scholar, Dean's List, MatSE Industrial Scholarship, Robert Bohl Scholarship

RESEARCH AND ACADEMIC EXPERIENCE

- Graduate Research Assistant, Andrew Smith Research Group** August 2019 – Present
- Ran assays utilizing RT-qPCR, RCA, SpR-RCA, and PG-RCA for detecting prostate cancer miRNA biomarkers
 - Specializing in developing highly sensitive molecular assays for lowering the limit of detection of cancer biomarkers
 - Documented experiments, drafted modified protocols, and made PowerPoint presentations for miRNA detection
- Chemical Sensors Research Assistant, Paul Braun Research Group** December 2017 – June 2018
- Made and characterized (SEM/EDX) various functionalized Silica nanoparticles for applications in lab-on chip design
 - Explored functionalizing Silica Nanoparticles (SNPs) with fluorescent tags to serve as an optical sensor for various biomarkers
 - Documented experiments, drafted modified protocols, and made PowerPoint presentations for MMP-9 detection
 - Participated in weekly group discussions for lab-on chip design, synthesis, and improvement strategies with post-doc
- Polymer Science, and Biomaterials Lab Assistant, MatSE Department - University of Illinois** January 2011 – May 2017
- Trained juniors and seniors in experiments that utilize Lyophilizer, Bio-Safety Cabinet, Centrifugation and DLS
 - Performed experiments involving Drug Delivery, Biocompatibility Testing, Tissue Engineering, and Bio-ceramics
 - Ordered and maintained equipment to keep lab running smoothly and efficiently for over 30 students, and researchers
- Biomaterial Scaffolds Research Assistant, Paul Braun Research Group** October 2010 – May 2011
- Synthesized inverse opal micron level 3-D porous biomaterial scaffolds for corneal epithelial cell applications
 - Wrote an undergraduate thesis on the potential applications of porous biomaterials coats for transplantable bio-implants
 - Participated in group discussions on biomaterial synthesis progress and refinement of 3-D structure with graduate assistant
- Polymers, and General Chemistry Teaching Assistant, Chemistry Department - University of Illinois** January 2009 – August 2019
- Taught 75 students per semester in Materials Science Engineering and general Chemistry courses
 - Improved student's performance in lab techniques and analysis reports
 - Assisted students in applying coursework to real world applications, and wrote quizzes and tests to assess
- Inventions Instructor Hong Kong University, Johns Hopkins CTY** June 2010 – August 2018
- Taught 20 students each summer in a foundational physics course applied to engineering design projects
 - Developed student's skills through participation, assessments, group projects, and in-class presentations
 - Helped students write a short Inventions novel consisting of physics concepts applied to real world projects
 - Worked with multiple Teaching Assistants and developed assessment and project materials over five years
 - Wrote over 100 student evaluations, and three lesson plans, course schedules, and course descriptions over five years
 - Constructed labs involving Newton's laws, air-resistance, electricity, buoyance, and solar energy
 - Developed numerous (20+) student in-class and outdoor active learning activities

POSTERS

- Multiparametric Single Molecule Analysis using Flow Cytometry (IGB) October 2019
Gene Transfer Learning for Predicting Cancer Drug Response (CSC Student Conference) March 2020
Multiparametric Single Molecule Analysis using Flow Cytometry (BIOE Days) March 2020

LEADERSHIP

Co-Founder, Sales & Marketing, NOSHFOLIO.com January 2012 – January 2014

- Maintained company's vision, developed a business plan, and a methodical sales-pipeline system for over 170 clients
- Led a sales team, and signed over 80 clients to priced online advertising on Noshfolio.com
- Developed and implemented advertising strategies in a community of 80,000 people in Champaign-Urbana

FEO Committee Director, Engineering Council Executive Board January 2009 – May 2011

- Created and organized info sessions for integrating medicine, business, and law with engineering
- Assisted in hosting E-Night, EXPO career fair, and Dean's Picnic to benefit engineering students
- Organized weekly committee meetings to plan and execute 5 annual workshops for over 3000 engineering students

Sexual Health Peer, McKinley Health Center September 2011 – May 2013

- Organized and gave presentations in sexual health topics such as STD's, Birth Control, hygiene etc.
- Hosted campus wide sexual health programs such as Breast Cancer Awareness and World AIDS day
- Discussed social stigmas on various sexual health topics during weekly meetings

Resident Advisor, Illinois Street Residence Halls - University of Illinois August 2009 – May 2011

- Maintained a safe and fun community for 50 residents by developing and leading educational and social programs
- Planned and coordinated over 15 programs to enrich resident's social justice knowledge
- Led a committee of 40 students in organizing building wide programs for over 1200 residents
- Mediated conflict resolution amongst residents

President, Donors for Life - University of Illinois August 2007 – May 2011

- Led monthly meetings to discuss goals and progress, and distributed tasks to 15 member executive board
- Recruited students to blood drives and educated them on the benefits of donating blood
- Increased involvement, and membership within the club by 75%

Vice President, Frontiers International Health Society - University of Illinois August 2009 – May 2011

- Organized and attended a 3-day Unite for site conference at Yale University
- Taught pre-med students on campus how to use basic medical equipment
- Fundraised \$3000 annually for donations to local medical charities and for global health conferences

Philanthropy Director, Theta Tau Professional Engineering Fraternity - University of Illinois February 2010 – May 2011

- Organized 2 large fundraisers to promote prostate cancer awareness
- Fundraised \$2000 per semester for medical and engineering education awareness
- Performed Ferro-fluid "dance" mechanics in the Engineering EXPO to recruit high school students interested in Engineering

VOLUNTEERING

EMT, IEMS - University of Illinois August 2015 – May 2016

- Performed emergency CPR in the Emergency Room during a 2 hour procedure
- Volunteered at University of Illinois Football, baseball, and hockey games
- Rode on 2-Emergency Ambulance ride for certification
- Utilized Blood Pressure monitor and stethoscope
- EMT-Basic certification from the University of Illinois IEMS course in 2015
- Analyzed and discussed different emergency patient scenarios in 12-hour weekend course sessions

First Responder, IEMS - University of Illinois August 2014 – May 2015

- Volunteered at University of Illinois Football, baseball, and hockey games
- Utilized Blood Pressure monitor and stethoscope
- First Responder certification from the University of Illinois IEMS in 2014
- Analyzed and discussed different emergency patient scenarios in 12-hour weekend course sessions

Hospital Volunteer, Good Samaritan Hospital and Avicenna Champaign Health Clinic May 2007 – August 2014

- Communicated in a comforting manner with the patients in the hospital setting
- Received phone calls and set up appointments for patients
- Operated simple equipment including the Centrifuge, Pulse Oxy meter, thermometer, and stethoscope
- Analyzed and discussed different types of medical cases encountered seasonally by physician supervisor

Tutoring Coordinator, *Phi Eta Sigma National Honors Society - University of Illinois*

October 2007 – May 2011

- Organized monthly on-campus tutoring for 50-75 college students in STEM courses
- Set up off-campus tutoring sessions and tutored at Centennial and Urbana High School bi-weekly for four semesters
- On-campus tutoring Executive board, organized large tutoring sessions, booked rooms, and tutored STEM courses
- Increased tutoring sessions attendance by including language and English tutoring as well as STEM courses

SKILLS

Technical Skills: MatLab, Introductory Python, Origin, Mathematica, Visual Basic

Languages Skills: English, Telugu, conversational Hindi and Spanish

Interests: Medicine and Technology, Travel (25 countries), Global Health, Reading, Tennis, Triathlons, Mountaineering