Gordon Research Conference: Two Dimensional Electronics Beyond Graphene, *poster presentation* (2016), "The Fundamental Role of Oxygen Stoichiometry in Controlling the Band Gap and Reactivity of Copper Oxide Nanosheets"

251st ACS National Meeting. *poster presentation* (2016), "Tuning the Optical and Catalytic Properties of CuO Nanosheets"

The 12th Annual Langer Symposium: The Questions that Drive our Work, *oral presentation* (2014), "Should You Throw It In the Pot? The Synthesis of Iron Oxide Nanosheets"

The 11th Annual Langer Symposium: Collaborations, *oral presentation* (2013), "Synthesis of Cupric Oxide Nanosheets"

PROFESSIONAL ORGANIZATIONS, LEADERSHIP, SERVICE & AWARDS

Theres and Dennis M. Rohan Fellowship Spring 2016-Present

American Chemical Society Fall 2015 – Present
- Member of a scientific community containing over 150,000 members and 47 journals

Teaching Assistant, Yale University Fall 2013 – Spring 2015
- Held weekly office hours and graded problem sets and exams for Separations and Purification Processes (10 students), Fluid Mechanics (80 students), and Multivariable Calculus (50 students)

Sprout/Splash Teaching Program, Yale University Summer 2013 - Fall 2014
- Taught philosophy and Creative Writing as a volunteer to a class of approximately 20 middle and high school students

Co-Organizer of TGIF, Yale University Fall 2015 – 2016
- Managed a $15,000 per year budget to host social events for 100 graduate students in the school of engineering

Co-Founder of CEE AGS, Yale University Fall 2014 - 2016
- Formed the committee of Chemical and Environmental Engineering's Association of Graduate Students to host social and career development events

Co-Organizer of New Haven's Write Club Fall2013-Fall 2015
- Met biweekly with other writers to read aloud fiction and nonfiction pieces and receive constructive criticism

Rensselaer Leadership Award, RPI Fall 2008 - Spring 2012

SKILLS

Nanomaterial Synthesis
- Nano-templating of iron oxide nanosheets on copper oxide nanosheets and graphene oxide
- Reflux in organic solvents for surface functionalization of copper oxide nanosheets
- Chemical Vapor Deposition (CVD) performed in a self-built reactor systems with on-line mass spectroscopy.

Nanomaterial Characterization
- Microscopy: Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM), Atomic Force Microscopy (AFM)
- Spectroscopy: X-Ray Diffraction (XRD), Energy Dispersive X-ray spectroscopy (EDX), Electron Energy Loss Spectroscopy (EELS), UV-Visible spectroscopy (UV-Vis), X-ray Absorption Fine Structure (XAFS), Fourier Transform Infrared spectroscopy (FTIR), Raman spectroscopy
- Catalytic: ThermoGravimetric Analysis (TGA), Temperature Programmed Desorption/Oxidation/Reduction (TPD/TPO/TPR), Mass Spectrometry (MS)

Catalysis
- Performed CO_2 conversion and methane oxidation over copper oxide and iron oxide nanocatalysts
- Used isotopic oxygen to validate Mars-Van Krevelin reaction mechanism in copper oxide nanosheets
- Constructed Photocatalytic reactor for photo-assisted CO_2 hydrogenation