

Augustus Lang

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EDUCATION

Georgia Institute of Technology, Atlanta, GA
PhD in Materials Science and Engineering

Expected: May 2020

University of Southern California, Los Angeles CA
Bachelor of Science, *Magna Cum Laude*, in Mechanical Engineering

December 2014

RESEARCH EXPERIENCE

Reynolds Research Group – Georgia Institute of Technology

August 2015 - Present

PI: Professor John Reynolds

Cellulose based electrodes for conducting polymer-based electrochromic devices

- Characterized vapor deposited aluminum doped zinc oxide as a possible paper-based electrodes.
- Investigated high throughput methods for generating highly conductive poly(3,4-ethylenedioxythiophene):poly(styrene sulfonate) on cellulose/PMMA composites, and nanocellulose coated paper for electrochromic device electrodes
- Fabricated and characterized electrochromic devices based on the cellulose electrodes incorporating electrochromic polymer materials developed in the Reynolds research group

Conducting polymer supercapacitors

- Blended a capacitive copolymer developed in the Reynolds group with carbon nanotube substrates for highly flexible, high-power supercapacitors.

E3S Summer REU – UC Berkeley

Summer 2014

PI: Professor Ali Javey

Chemically Doped Graphene Contacts for n- and p-type WSe₂ Transistors

- Fabricated and characterized field effect transistors using WSe₂ and chemically doped graphene as the contact for eliminating the contact schottky barrier.

USC Merwyn C. Gill Composites Center

Fall 2012-December 2014

PI: Professor Steven Nutt

Fatigue Life and Oxidation of Aged Laminates

- Investigated accelerated aging effects on the fatigue strength of GF laminates (epoxy and pDCPD matrix) in order simulate conditions on coastal windmill blades and determine optimum resin matrix to be used.
 - Hu, Y.; Lang, A. W.; Li, X., Nutt, S. R. "Hygrothermal aging effects on fatigue of glass fiber/polydicyclopentadiene composites" *Polym. Degrad. Stabil.* **2014**, 110, 464.
 - Hu, Y.; Li, X.; Lang, A. W.; Nutt, S. R. "Water immersion aging of polydicyclopentadiene resin and glass fiber composites" *Polym. Degrad. Stabil.* **2016**, 124, 35.
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WORK EXPERIENCE

Glenair Inc. –Glendale, CA

Summer 2012

Summer Intern

- Modeled and designed technical parts under development at Glenair using CAD Solidworks and Cadkey
 - Worked with engineers and the senior scientist to design a new valve to be used in connectors as well as a testing apparatus for various gas tube assemblies
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Organizations, AWARDS, and HONORS

- MSE Graduate Student Advisory Group 2015-Present
 - Georgia Tech Presidents Fellowship 2015-2016
 - Provost Undergraduate Research Fellowship 2013-2014
 - W.V.T. Rusch Engineering Honors Program 2011-2014
 - Jackling Scholarship 2013-2014
 - Boeing Scholarship 2011-2012
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