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Andrew McAllister

Résumé

Summary

- Goal** A career where I can use my technical expertise to work on understanding complicated problems facing society and then communicate those efforts (and possible solutions) to a wide variety of audiences.
- Analytical Thinking** A PhD in applied physics with specific expertise in materials science, nanotechnology, energy efficiency, and high performance computing.
- Communication** Sought out specific training and experiences presenting to, writing for and working with diverse audiences throughout my PhD.

Education

- Expected:** **PhD in Applied Physics**, *University of Michigan*, Ann Arbor, MI.
August 2018 Relevant Coursework:
 - o Public Policy 650 – Introduction to Science and Technology Policy Analysis
 - o Engineering 580 – Teaching Engineering
- 2012** **B.S. in Physics**, *Rensselaer Polytechnic Institute*, Troy, NY.
Magna cum laude, dual major in mathematics

Work Experience

- June-August 2013** **Computational Chemistry and Materials Science Fellow**,
Lawrence Livermore National Laboratory, Livermore, CA.

Awards

- 2014 National Science Foundation Graduate Research Fellowship Program
- 2012 [Nadia Trinkala Service Award](#), Rensselaer Physics Department
- 2010 Rensselaer Polytechnic Institute [Founder's Award of Excellence](#)
- 2008 Boy Scouts of America, Eagle Scout

Leadership

- 2017-Present** **Senior Editor**, *Applied Physics Student Council, Students of Applied Physics Project*, Ann Arbor, MI.
- 2014-2015** **President**, *Local Chapter of American Society for Engineering Education*, Ann Arbor, MI.
- 2009-2011** **President**, *Local Chapter of Society of Physics Students*, Troy, NY.

Communication Training

August 2017 **ComSciCon Chicago**, Chicago, IL.

2016 **Researchers Expanding Lay-Audience Teaching and Engagement (RELATE) Workshops.**

- o Over 3 months, worked on crafting messages and narratives, considering different audiences and making visual aids.
- o Developed and produced a [YouTube video](#) highlighting my research.

Selected Communication Experience

General Audience Writing

1. **Atomistic Calculations Predict That Boron Incorporation Increases The Efficiency Of LEDs**, 2017.
Press release for research group. Picked up by the DOE, NERSC, and Semiconductor Today.
2. **Senior Editor**, *Students of Applied Physics*, *Applied Physics Student Council*.
I work with PhD students to develop understandable and engaging articles about research in the applied physics department. [Example article](#)

Public Engagement

1. **Andrew McAllister**, **LED Light Bulbs: Why Do They Cost an Arm and a Leg?**, *Nerd Nite* 2017, Ann Arbor, MI

Technical Publications

1. **Andrew McAllister**, Dylan Bayerl, Emmanouil Kioupakis, Auger and radiative recombination in indium nitride, *Applied Physics Letters*, **112**, 251108 (2018) [doi:10.1063/1.5038106](#)
2. Kyeongwoon Chung, **Andrew McAllister**, David Bilby, Bong-Gi Kim, Min Sang Kwon, Emmanouil Kioupakis, Jinsang Kim, Designing interchain and intrachain properties of conjugated polymers for latent optical information encoding, *Chemical Science* **6**, 6980-6985 (2015) [doi:10.1039/c5sc02403j](#)

Contributed Technical Presentations

1. **Andrew McAllister**, Dylan Bayerl, Christina Jones, Emmanouil Kioupakis, Auger Recombination From First-principles in Group-III Nitride Alloys, American Physical Society March Meeting 2018, Los Angeles, CA
2. **Andrew McAllister**, Dylan Bayerl, Emmanouil Kioupakis, Radiative and Auger Recombination of Degenerate Carriers in InN American Physical Society March Meeting, 2017, New Orleans, LA
3. **Andrew McAllister**, Predictive modeling of quantum processes for optoelectronic devices, Physics Graduate Student Symposium, 2014, Ann Arbor, MI