Education and Research

National Institute of Standards and Technology, Boulder, CO
Postdoctoral Research Fellow / Research Associate 2013 – Present -
Microwave near-field microscopy of low-dimensional materials
- Ultra high vacuum / cryogenic multi-probe scanning probe microscopy and microwave imaging

University of Colorado, Department of Physics and JILA, Boulder, CO
Postdoctoral Research Fellow with Prof. Markus B. Raschke 2011 – 2013
- Optical near-field microscopy of two-dimensional materials and biological samples - Nonlinear optical spectroscopy and microscopy using plasmonic nanofocusing
- Near-field optical microscope instrument and applications development (In collaboration with Anasys Instruments)

University of Washington, Department of Chemistry, Seattle, WA
Graduate Research with Prof. Markus B. Raschke 2006 – 2011
Ph.D., August 2011
- Thesis: "Plasmonic Antennas for Optical Nanocrystallography and Femtosecond SpatioTemporal Control"
- Plasmonic phenomena on tapered noble metal tips for nano-spectroscopy and imaging
- Ultrafast and nonlinear spectroscopy and near-field imaging
- Tip-enhanced Raman spectroscopy of molecular and solid state systems
- Raman microscopy and spectroscopy

University of California at Santa Cruz, Santa Cruz, CA
Undergraduate Research with Prof. Sue A. Carter 2004 – 2006
B.S., Physics, Minor in Chemistry (Highest Honors and College Honors)
- Thesis: "Photovoltaic characterization of copolymers of MEH-PPV and M3EH-PPV with broken conjugation"
- Fabrication and characterization of organic photovoltaic devices