Education Doctor of Philosophy in Geography; In Progress Arizona State University School of Geographical 2016 - Present Sciences & Urban Planning Bachelor of Arts in Earth & Planetary Sciences; Concentration in Earth Materials 2010 - 2014 Northwestern University Work Experience 2017 - 2018 **Research Assistant Arizona State University** Development of and assistance in ethnographic study of alternative fuel vehicle driver decisions. Full stack development of Colablocation platform for hydrogen refueling in Connecticut; in progress Designed and built Colablocation project home page: collablocation.shinyapps.io/home 2016 **GIS Specialist** Mobilitie Management, LLC - Identified & QC'd sites suitable for permitting & constructing telecom network assets using ESRI ArcGIS Online & Google Earth. Entered specifics into geodatabase of candidates & ensured quality of data throughout the process. Collaborated in teams & performed this task independently. Supported field verification teams in real time over phone to evaluate & troubleshoot sites. Researched local ordinances & attributed zoning data to features in geodatabase of county & municipal shapefiles. Internship Experience Illinois State House District 19 2015 Intern - Organized & implemented initiatives to engage constituents on events in Springfield & the district. Summarized & collated engagement outcomes to inform policy decisions & outreach efforts.

New AmericanDemocracy ProjectIllinois Coalition for Immigrant & Refugee Rights2014Fellow

 Engaged immigrant communities in discussions on the role of voting in the legislative process to achieve immigration reform via non-partisan, grassroots efforts. Managed a team to register & mobilize voters, many for the first time.

Natural History Research Experience Smithsonian National Museum of Natural History 2012 & 2013 Fellow

- Conducted petrographic & electron microprobe analysis on peridotite samples under the mentorship of Dr. E. Cottrell & Dr. J. M. Warren.
- Calculated & compared O2 concentration in tectonic settings. Tested & refined established methods of calculation.
 Developed an application to expedite the process & to produce visual representations of the data in real time.
- Reviewed 100+ scientific journal articles to populate a database of measured volcanic SO2 emissions & weather, equipment, & other qualitative conditions of each event. Developed a standard form for future emission reports.

Volunteer Activities

Peer-to-Peer Coordinator

SGSUP Graduate Student Committee

- Arrange brown bag lunches for graduate student discussion of research and activities.
- Organized the Faculty Forum: Navigating the Job Market dinner & discussion.
- Established & curated semiweekly newsletters tailored toward graduate student interests

Facilitator

ASU No More Deaths

- Organized field expeditions into Sonoran Desert. Sourced & assembled medical kits, & instructed groups in their use.
 Drove & maintained vehicles. Led hikes in rugged terrain.
- Led discussions on social & geologic history of the southwest border region.

Secretary

Kosciuszko Park Advisory Council

- Rallied & organized concerned neighbors to restart the KPAC for fundraising & community involvement purposes.
- Promoted programs & volunteer opportunities at neighborhood association meetings & through varied media.

Gardener

Kilbourn Park Organic Greenhouse

- Instructed children ages 8-11 on cartography & mapping techniques as guest teacher of Eco Explorers program.
- Maintained a garden & participated in communal maintenance of the grounds.

Research Interests

- Geodesign
- Transportation & energy systems
- Infrastructure network development
- Public participation & stakeholder engagement

Publications

Kuby, Michael, Keiron Bailey, Fangwu Wei, John Fowler, Daoqin Tong, Qing Zhong, Oscar Lopez, and William Shaeffer.
 2018. Collaborative geodesign for alternative fuel station location using "Collablocation" software. *Transportation Research Record* (accepted for publication).

Davis, F., Cottrell, E., Birner, S., Warren, J., & Lopez, O. (2017). Revisiting the electron microprobe method of spinelolivine-orthopyroxene oxybarometry applied to spinel peridotites. *The American Mineralogist.*, 102(2), 421-435.

Presentations

Natural History Research Experience Symposium. Oxygen fugacity of the upper mantle recorded in spinel: determination by electron microprobe analysis. Washington, DC. Aug. 2012.

American Geophysicists Union. Upper mantle oxygen fugacity in ridge and subduction zone settings recorded by spinel in peridotite. San Francisco, CA. Dec. 2012.

2016 - Present

2017 - Present

2015 - 2016

2014 - 2016