

Shan Ye

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EDUCATION

- **University of Wisconsin-Madison**, Ph.D. in Geoscience and minor in GIS *2018 - 2022*
- **University of Tulsa**, M.S. in Geoscience *2016 - 2018*
- **University of Michigan**, B.S. in Earth and Environmental Sciences *2013 - 2015*
- **The Pennsylvania State University**, GIS *2011 - 2013*

RELATED EXPERIENCE

EarthCube Research Assistant, University of Wisconsin-Madison *2018 - now*

- Developing the database (PostgreSQL) and interface (JavaScript and Python) for the cosmogenic branch of Sparrow, a cyberinfrastructure and software that facilitates inter-lab sharing and management of geochronological data.
- Utilizing machine learning and natural language process (in R) to extract spatiotemporal data from published papers regarding ice-rafted debris in order to reconstruct the paleoclimate in the past 5 million years.
- Validated the late-Cretaceous age model of Macrostrat, a geospatial database containing stratigraphic columns of North America. Wrote an instruction file for the Macrostrat API.

Project Participant, University of Tulsa *2016 - 2018*

- Conducted spatiotemporal analysis of geophysical and well log data in Python, ArcGIS and Petra, and located potential oversaturated regions and unmapped faults that caused the series of induced earthquakes in Oklahoma. Leading role in geospatial and geomechanical analysis.

Research Assistant, University of Michigan *2014*

- Built a 3D model of Michigan Basin and Lake Michigan based on geospatial data and calculated the potential source of pollution at the basal layer of Lake Michigan (ArcGIS and R).

TEACHING AND LEADERSHIP

- Temporary Instructor of GIS, University of Tulsa *March 2018*
- President of AAPG University of Tulsa Chapter *2017 - 2018*
- Core team member (geologist, GIS analyst) of Imperial Barrel Award competition *Spring 2017*
- Course Assistant (TA) of UC 280 (Social Justice), University of Michigan *2014 - 2015*
- Teaching Intern of GIScience, Penn State University *Fall 2012*
- (Co-)organizer of multiple workshops on spatial analysis, web mapping and cartographic design

SKILLS

- Programming: Python, R, SQL, C++, Java, HTML, CSS, JavaScript
- Software: ArcGIS, QGIS, GeoDa, Petrel, Petra, ABAQUS, Illustrator, CorelDraw, Photoshop
- Specialties: GIS, spatial analysis, cartography, climatology, geomechanics, numerical methods