Shan Ye

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EDUCATION

University of Wisconsin-Madison, Ph.D. in Geoscience, Minor in Computer Sci. *2018 – 2022 (exp)*
- Cyberinfrastructure and software development for geoscience
- Spatiotemporal data analysis in paleoclimate & data-model comparison

University of Tulsa, M.S. in Geosciences *2016 – 2018*
- Numerical analysis (Finite Element Method) on geomechanics (buckling fold)
- Geospatial analytics on induced seismicity in Oklahoma

University of Michigan, B.S. in Earth and Environmental Sciences *2013 – 2015*

Pennsylvania State University, Geography – GIS *2011 – 2013*

EXPERIENCE

Research Assistant (EarthCube), University of Wisconsin-Madison *2018 – present*
- Software developer: developing frontend (data submission forms and interactive maps) and backend (data uploading functions, database and API) of the Sparrow (cosmogenic lab branch) – see *https://sparrow-data.org*
- Macrostrat: Validating the Cretaceous age model of Macrostrat database, and creating new polygons to enhance spatial resolution. Testing spatial and temporal queries with dinosaur data from PBDB – see *https://macrostrat.org*
- GeoDeepDive: utilizing NLP to extract spatiotemporal data regarding ice-rafted debris (IRD) in the past 5 million years from published literature. Located 30 IRDs from a test datasets of about 1000 randomly selected geoscience journal articles – see *https://geodeepdive.org*

Internship in Geophysics, Chinese Academy of Sciences *2015 – 2016*
- Research on seismic data processing, visualization and interpretation regarding shale gas reservoirs

GIS Analyst, University of Michigan *2013 – 2014*
- Created 3D models of Michigan Basin and Lake Michigan based on geological and geospatial data
- Conducted spatial analysis and located hot spots of potential water pollution from hydrofracking
- Built interaction web maps to display mineral/fossil sample locations, data and pictures

SKILLS

- Expertise in Python and R; Working knowledge in C++, Java, JavaScript, HTML, CSS and SQL
- Software: ArcGIS, QGIS, PostgreSQL/PostGIS, GeoDa, ABAQUS, Illustrator, Petrel, Mathematica

TEACHING

- Temporary instructor in GEOL 4083 (GIS for geology), University of Tulsa *Spring 2018*
- Student instructor and grader in UC 270 (social justice), University of Michigan *2014 – 2015*
- Teaching intern in GEOG 363 (GIScience), Pennsylvania State University *Fall 2012*

OTHERS

- Translator of textbook *Exploring Geology* by Reynolds et al., English to Chinese *2019*
- President of AAPG University of Tulsa Chapter (awarded L. Austin Weeks grant) *2017 – 2018*
- Imperial Barrel Award competition as structural geologist and GIS analyst *Spring 2017*
- Geoscience and GIS outreach writer; more than 5 million accumulative views since Jan. 2018