Shan Ye

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EDUCATION

- **University of Wisconsin-Madison**, Ph.D. in Geoscience *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**, GIScience *2011 - 2013*

CURRENT PROJECTS (EarthCube Research Assistant at UW-Madison)

Sparrow Cyberinfrastructure – Cosmo Branch *https://sparrow-data.org/*

- Developing the database for inter-institutional geochemical data sharing (Postgres/PostGIS)
- Frontend functions, especially data-submission forms and interaction maps (JavaScript)
- Backend functions including the data uploading pipeline (Python)

GeoDeepDive *https://geodeepdive.org/*

- Utilizing machine learning and natural language process to extract spatiotemporal data from published papers regarding ice-rafted debris in order to reconstruct the paleoclimate in the past 5 million years.

Macrostrat *https://macrostrat.org/*

- Validating the Cretaceous age model of the Macrostrat geospatial and sedimentology database
- Compiling new polygons and stratigraphic columns of Cretaceous to enhance the spatial resolution
- Wrote the instruction for the Macrostrat API

TEACHING & LEADERSHIP

- Temporary Instructor of GIS class, University of Tulsa *Spring 2018*
- President of AAPG University of Tulsa Chapter *2017 - 2018*
- Team member (geologist, GIS analyst) of Imperial Barrel Award competition *Spring 2017*
- Social science course assistant (TA) and research group facilitator, University of Michigan *2014 - 2015*
- GIS teaching intern, Penn State University *Fall 2012*
- (Co-)organizer of multiple workshops on spatial analysis, web mapping and cartographic design

SKILLS

- **Programming**: Python, R, HTML, CSS, JavaScript, C++, Java, SQL
- **Software**: ArcGIS, QGIS, GeoDa, Petrel, Petra, ABAQUS, Illustrator, CorelDraw, Photoshop
- **Specialties**: GIScience, climate, spatial analysis, cartography, geomechanics, numerical simulation
- **Others**: WebGIS, outreach writing, teaching, UI design, audio and video editing, field work

RELEVANT ONLINE & SHORT COURSES

- Data science and machine learning (JHU)
- Algorithm and data structure (UC San Diego)
- IsoAstro geochronology (UW-Madison/WWCC)
- Geographic coordinates systems (Esri)
- 3D analysis of surfaces and features (Esri)

PROFESSIONAL ORGANIZATIONS

- American Association of Petroleum Geologists
- American Association of Geographers
- North American Cartographic Information Society
- Society for Sedimentary Geology