**Shan Ye**

1215 West Dayton Street, Madison, WI 53715

734-548-0205 | yeshantulsa@hotmail.com | https://yeshancqcq.github.io

**Education**

**University of Wisconsin - Madison**

Ph.D. in Geoscience, 2018 – 2022 (Exp.)

Minor in computer science

Focuses:   
1. Geoscience cyberinfrastructure and software development  
2. Spatiotemporal data analysis of paleoclimate and data-model comparison  
3. Geoscience literature spatiotemporal data mining

**University of Tulsa**

Master of Science in Geosciences, 2016 - 2018

Focuses:  
1. Geomechanical numerical simulation application and algorithm  
2. Geospatial analytical application on petroleum geology research

**University of Michigan**

Bachelor's of Science in Earth and Environmental Sciences, 2013 - 2015

**Pennsylvania State University**

GIScience, 2011 - 2013

**Ongoing Projects**

**Sparrow Cyberinfrastructure – Cosmo Branch**  
*https://sparrow-data.org*  
1. Developing the database for inter-institutional geochemical data sharing (Postgres/PostGIS)   
2. Developing frontend functions including data submission forms and interaction maps (JavaScript)   
3. Developing backend functions including the data uploading pipeline and API routes (Python)   
 **Macrostrat**  
*https://macrostrat.org*  
1. Validating the Cretaceous age model of the Macrostrat geospatial and sedimentology database  
2. Building new polygons and stratigraphic columns of Cretaceous to enhance the spatial and temporal resolution  
3. Wrote the instruction for the Macrostrat API  
 **GeoDeepDive**  
*https://geodeepdive.org*  
Utilizing machine learning and natural language process to extract spatiotemporal data from published papersregarding ice-rafted debris in order to reconstruct the paleoclimate in the past 5 million years.

**Skills**

**Data Analysis**: R, Python, Excel **Database**: MySQL, PostgreSQL, Esri Geodatabase, Access **Programming**: Hands on experiences in C++, Java, HTML, CSS, JavaScript **Software**: ArcGIS, QGIS, Illustrator, Photoshop, CorelDraw, Petrel, 3ds max, GeoDa, ABAQUS

**Employment History**

**University of Wisconsin - Madison**

EarthCube Research Assistant, 2018 – Present

**Chinese Academy of Sciences**

Research Intern in Geophysics, 2015 – 2016

**University of Michigan**

Web GIS Developer, September – December 2014

**University of Michigan**

GIS Analyst, 2013 – 2014

**Honors and Awards**

**Weeks Research Assistantship**, University of Wisconsin-Madison, 2018 – 2019

**L. Austin Weeks Grant** for AAPG TU Chapter, AAPG, 2018

**University Honors**, University of Michigan, 2 times in 2014

**Recognition of Global Excellence**, University of Michigan, 2014

**Dean's List**, Pennsylvania State University, 3 times in 2012 and 2013

**Erickson Fund in Geography**, Pennsylvania State University, 2013

**Organizations**

American Association of Petroleum Geologists (AAPG)

American Association of Geographers (AAG)

North American Cartographic Information Society (NACIS)

Society for Sedimentary Geology (SEPM)

**Teaching**

**Temporary instructor**, GEOL 4083: GIS for Geologists  
Spring 2018, University of Tulsa  
  
**Course Assistant,** UC 270: Social Justice  
Fall 2014 and Winter 2015, University of Michigan  
  
**Teaching Intern**, GEOG 363: GIScience  
Fall 2012, Pennsylvania State University

**Short Courses and Online Trainings**

**Data Science and Machine Learning**  
Johns Hopkins University @ Coursera, 2019 (ongoing) **Data Structures**  
University of California San Diego @ Coursera, 2019 **IsoAstro**  
University of Wisconsin-Madison @ Western Wyoming Community College, 2019 **Algorithmic Toolbox**  
University of California San Diego @ Coursera, 2016

**Leadership and Outreach**

President of AAPG University of Tulsa Chapter, 2017 - 2018

(Co-)organizer of multiple workshops on spatial analysis, web mapping and cartographic design, 2014 - 2018

Outreach works reached 5 million views combined since January 1st 2018

Have published 4 e-books (1 as the author and 3 as a co-author) in geoscience and geography since 2016

Translator of the text book *Exploring Geology* (to be published soon)