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)