Anran Zheng

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EDUCATION

University of Pennsylvania *Philadelphia, PA*

Master of Urban Spatial Analytics | Stuart Weitzman School of Design *Aug. 2021 – Expected May. 2022*

- **Relevant Coursework:** Statistics, Python, R, JavaScript, SQL, GIS, Remote Sensing, Machine Learning

Capital Normal University *Beijing, China*

Bachelor of Science in GIS | College of Geospatial Information Science and Technology *Sept. 2017 – Jun. 2021*

- **GPA**: 3.92/4, Rank 1/43 (Outstanding Graduate Award)

Northern Illinois University *Dekalb, IL*

Bachelor of Science in Geography | Department of Geographic and Atmospheric Science *Aug. 2018 – May. 2020*

- **GPA**: 3.95/4, Rank Top 5% (Dean's List for all semesters)

RASEARCH EXPERIENCES

Digital Terrain Analysis *July. 2021 – Aug. 2021*

Summer Research Assistant at Capital Normal University

- Perform digital terrain data collection, documentation and analysis in QGIS and GRASS.
- Completed professional laboratory reports, including the least cost path, hydrological analysis, point cloud classification, etc.

Spatiotemporal transmission pattern of the COVID-19 in New York *Sept. 2020 – Jun. 2021*

Leader of Capital Normal University Geography Talent Development Program

- Conducted spatial autocorrelation and spatiotemporal scanning analysis to detect the COVID-19 clusters.
- Analyzed the factors influencing the COVID-19 spreading with Geodetector method.

Automatic lake extraction and classification in Tibet based on DEM data *Jan. 2020 – May. 2020*

Research Assistant in the Tibet Institute of Chinese Academy of Science

- Designed and implemented a program which can extract and classify the lakes in Tibet based on the DEM data with Arcpy and Python.
- Presented as a research poster on the Undergraduate Research Day and Artistry Event in NIU.

PUBLICATIONS

- **Zheng, A.**; Wang, T.; Li, X. Spatiotemporal Characteristics and Risk Factors of the COVID-19 Pandemic in New York State: Implication of Future Policies. ISPRS Int. J. Geo-Inf. 2021, 10, 627. https://doi.org/10.3390/ijgi10090627

INTERNSHIPS

Piesat Information Technology Co., Ltd *Mar. 2021 – Jun. 2021*

Remote Sensing Engineer *Beijing, China*

- Participated in the national ecology protection project. Tested the Java, C++ and Python algorithm of PIE-Engine, a remote sensing programming package.
- Processed the remote sensing data with ERDAS and ArcGIS, and completed writing the user's manual.

Shenzhen Visiondom ESG Co., Ltd *Nov. 2020 – Jan. 2021*

GIS and Statistics Analyst *Beijing, China*

- Established a water pollution simulation model of Yangtze River Delta region with ENVI and SPSS.
- Modelled the distribution pattern of urban residents of the Pearl Delta region with GIS and statistics methods.

Chinese Academy of Surveying and Mapping *Jul. 2020 – Oct. 2020*

GIS and Statistics Analyst *Beijing, China*

- Conducted spatial and statistics analysis on the land-use changing pattern of Hefei city during 2017-2019 in

ArcGIS and the Pivot table in Excel.
- Vectorized, checked and repaired the topology errors from mangrove polygons of four provinces in ArcGIS.
- Analyzed the land use changing patterns of Yeyahu National Wetland Park within 8 years with SPSS, ArcGIS, ERDAS and advanced functions in Excel.
- Completed comprehensive research reports on the data analysis of Hefei City and Yeyahu.

NIU Geovisual Mapping Laboratory   *Jan. 2020 – May. 2020*
Cartographer   *Dekalb, IL*
- Established some thematic and animation maps of NIU campus, and a 3D fly-through animation movie with ArcGIS Pro and posted as a story map online for celebrating the125th anniversary of NIU.

TEACHING EXPERIENCES

Note-taker | Student Disabilities Services, University of Pennsylvania   *Aug. 2021 – present*
- Assisted visual and hearing-impaired students take comprehensive class notes of four courses manually, and uploaded them on the Tutoring Center in timely manner.

Teaching Assistant | College of GIST, Capital Normal University   *Sep. 2020 – Jul. 2021*
- Taught Python and ArcGIS to sophomore students and tutored them to complete the assignments.
- Helped instructor prepare the teaching materials, designed the lab and graded assignments and exams.

SKILLS

- **Applications:** Expert in ArcGIS, QGIS and ArcGIS Pro; proficient in ENVI, ERDAS, GeoDa, and SPSS.
- **Programming:** Proficient in R, SQL, Python and Arcpy; familiar with HTML, JavaScript, C and C++.
- **Language Skills:** Mandarin (Native); English (TOEFL 108, GRE 320).
- **Others:** Strong research, problem-solving and analytical skills; excellent time management, presentation and communications skills; good academic writing and leadership skills.