

Shan Gao

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EDUCATION

- **Arizona State University** Tempe, AZ
Master of Advanced Study - Geographic Information Systems Aug 2021 - Aug 2022
Courses: Programming GIS Environment, Spatial Modeling, GIS Project Plan & Impliment, Intermediate GIS, GIS for Business
- **Arizona State University** Tempe, AZ
Bachelor of Science - Parks and Recreation Management Aug 2017 - Feb 2021
Courses: International Tourism, Rec Planning/Facility Develop, Inclusive Community Development, Sustainable Communities
- **Hainan University** Hainan, China
Beachelor of Science - Human Geography and Urban Planning Aug 2017 - May 2021
Courses: Human Geography, Tourism Planning, Physical Geography, Urban Geography, Economics, Principles of Management

SKILLS

- **Softwares:** ESRI ArcGIS Software, SQL Server Management Studio, Google Earth Engine, AutoCAD, Azure, Ubuntu 22.04, Metashape
- **Languages:** Python, SQL, HTML, CSS, JavaScript, LaTeX

EXPERIENCE

- **Jiwei Li's Remote Sensing Lab** Tempe, AZ
Student Intern Oct 2021 - July 2022
 - **Data Processing:** Modify Mangrove China 2018 data in Hainan Province based on the satellite image, created 849 polygons as mangrove core area for future verification
 - **Classification:** Using Random Forest Supervised Classification method to classify Hainan Island mangrove forest using Landsat 8 Surface Reflectance data in 2018
 - **ArcGIS Model:** Built a model to make results go through reclassify, majority filter, and boundary clean tool, clip the result based on Mangrove China 2018 400 meters buffer area
- **Project of Earth Resources and Environment** Beijing, China
Student Assistant July 2020 - Sep 2020
 - **Analysis:** Analyzed the current situation and problem of the volunteering system in China World Heritage, listed the objectives of the World Heritage Volunteer initiative
 - **Research Work:** Researched specific cases in Danxia mountain, Mogao Grottoes, The Grand Canyon, and Yellow Stone National Park, compared the legislation and motivation system between China and U.S. volunteering system

PROJECTS

- **Monitor Central Arizona Lakes** Tempe, AZ
 - Utilize Google Earth Engine created timelapse from 2010 to 2021 and Palmer Drought Severity Index to find out the proper year to analyze
 - Classify Mormon Lake, Lynx Lake, and Watson Lake using ISO Cluster Unsupervised Classification, Support Vector Machine Supervised Classification, and U-Net Deep Learning Classification methods in ArcGIS
 - Compare different classification methods on accuracy level and visual effect level, also calculate the estimated time of processing
- **Tempe Public Art** Tempe, AZ
 - Came through several methods and data to find the potential art installation according to the core concept of Economic equity, Social equity, and Racial equity
 - Referenced the offenses analysis and land use data, finally find three vacant areas in Tempe, suggested building a landmark level public art
 - Delivered the geodatabase, well-designed maps, analysis, web app, presentation, and executive summary for the project
- **Monitor Mangrove Change in Nature Reserve** Haikou, China
 - Classify the mangrove area in Dongzhaigang Nature Reserve, using Landsat8 data from 2014 to 2020 on Google Earth Engine
 - Created NDVI & mangrove area change curve from 2013 to 2020, also provides protection recommendations for local authority based on the mangrove shrinking fact and interview