

KUANG-CHENG, CHENG

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Portfolio: https://kcivilengi.github.io/portfolio_v1/index.html

EDUCATION

- Sep. 2021-
May. 2023 **University of Wisconsin-Madison, Madison**
 M.S. in Geographic Information Systems and Cartography
- GPA: 3.83
- Sep. 2011-
Jun. 2015 **National Central University, Taoyuan, Taiwan**
 B.S. in Civil Engineering
- EAC accredited program.
 - GPA: 3.34.
 - Relevant coursework:
 - (1) Programming for Engineering (C++) using Visual Studio
 - (2) Numerical Analysis: Program design in Matlab
 - (3) Engineering Statistics

PROJECTS

- **Spatial Big Data Analysis & Visualization:**
“Madison Metro Transit Redesign Evaluation” - Perform data ETL, statistical data analysis and visualize spatial data on an interactive map using Python in Jupyter notebook.
- **Spatial Database Design and Management:**
“US National Parks Recreational Database” - Create database to integrate visitation records, facilities, and spatial data inside or nearby national parks using PostgreSQL (with PostGIS extension).
- **GIS Analysis:**
“Road salt use impact on major sensitive areas in the metropolitan area of Marathon County”-Perform spatial analysis and map the potential contamination strength on each road for marathon county transportation planner.
- **Geovisualization and UI/UX Design:**
“United States Exports By Industry” - Create a web-based user interface to visualize the data collected from the Observatory of Economic Complexity (OEC) using JavaScript/HTML/CSS with Leaflet library.
- **GIS Development Practicum:**
“Yearly ridership data analysis and visualization” - create a workflow for data ETL, open data publishing, and spatial data management and visualizations.
- **Cartography (Mapping) Design:**
“Taiwan Public Transportation Infrastructure – bus ridership vs. population”-Aggregate data from multiple open data resources and visualize data on a map using ArcGIS Pro and Adobe Illustrator.

SKILLS

Languages: Mandarin Chinese (native), English (fluent).

Computer Software: AutoCAD, SketchUp, ArcGIS Pro, QGIS, MS Power BI, Adobe Illustrator, MS Office (including Word, Excel, PowerPoint)

Programming: Python, SQL, C++(basic), HTML/CSS/ JavaScript

Cloud Computing Environment: Google Cloud Platforms, ArcGIS Online (AGOL)

Database System: PostgreSQL (with PostGIS) and MongoDB

Other: Multi-tasking, Time Management, Problem-solving, Project Coordination, Supervisory Skills, Data Management, Communication

WORK EXPERIENCE

- Jan. 2022-
Aug. 2022 **GIS Metadata Technician**
 Department of Geography, University of Wisconsin-Madison *Madison, WI*
- Assessed LiDAR data inventory statuses
 - Created original ISO metadata for nearly 400 new Wisconsin county datasets
 - Added interactive tile indexes for Wisconsin LiDAR-derivative data resources
 - Edited Wisconsin V8 county parcel data using Python
- Aug. 2019- **Assistant Engineer**

- Jul. 2021** *Ministry of Transportation and Communication* *Taipei, Taiwan*
- Processed mask demand and accounting data, and analyzed the mask demand trend using Microsoft Excel
 - Updated, maintained, and delivered routine mobilization data using Microsoft Excel
 - Coordinated the mask distribution (logistics) project for COVID-19
 - Evaluated communication task guidelines for air, shipping, and road transportation
 - Arranged the annual training program for senior officers and project leaders
- Nov. 2016-
Jul. 2021** **Junior Engineer** *New Taipei, Taiwan*
Freeway Bureau
- Examined and revised environmental impact assessment reports based on geospatial data analysis results
 - Digitized Taiwan's freeway historical documents
 - Held environmental education events to educate all employees
 - Examined design drafts and contracts of national bridges.
- Jul. 2014-
Aug. 2014** **Engineer Intern** *Taipei, Taiwan*
CECI Engineering Consultants, Inc.
 Gained experience at the most prominent civil engineering design company in Taiwan
- Visualized civil engineering project drafts and data on Google Earth
 - Completed sectional drawings of roads on the mountain area of Tai-20 (one of Taiwan's provincial highways) using AutoCAD

CERTIFICATION

- 2016** **Professional and Technical Personnel Examinations of Civil Engineers, Taiwan**
- Certificate issued by Ministry of Examination, R.O.C. (Taiwan).
 - Officially qualified to be a Professional Civil Engineer in Taiwan.
 - Qualification Rate (2016): 11.53%.
- 2016** **Civil Service Level Three Senior Examination in Civil Engineering, Taiwan**
- Certificate issued by Ministry of Examination, R.O.C. (Taiwan).
 - Passed the public servant exam, Junior Engineer (Grade 5-7).
 - Qualification Rate (2016): 25.78%.
- 2016** **Civil Service Junior Examination in Civil Engineering, Taiwan**
- Certificate issued by the Ministry of Examination, R.O.C. (Taiwan).
 - Passed the public servant exam, Engineering Assistant (Grade 3-5).
 - Qualification Rate (2016): 35.7%.

EXTRACURRICULAR ACTIVITIES

- 2014** **Team Leader**
Fabrication of Concrete Mini Canoe Competition between National Central University and Tokyo Institute of Technology
- Won 2nd place in the competition.
 - The top 10 candidates out of 120 students in the department of civil engineering.
- 2012** **Vice President**
Magic Club of National Central University
- Organized venues for club activities, events, and exhibitions.
 - Filed activity reports and application forms to Office of Student Affairs.
 - Reviewed weekly courses for club members.
 - Informed club members of club news and events.