

KUANG-CHENG, CHENG

Mobile: +1(608)977-3005 | Email: kcheng38@wisc.edu | Madison, WI

Github: <https://github.com/KCivilEnGI>

EDUCATION

- Sep. 2021-present** **University of Wisconsin-Madison, Madison, WI**
MS in Geographic Information Systems and Cartography
Projects:
- Cartography (Mapping) Project:
“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
 - GIS Analysis Project:
“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
 - Geocomputing Project:
“Madison Metro Transit Redesign Evaluation”-Perform statistical data analysis and visualize spatial data on an interactive map using Python and HTML/CSS/JavaScript in Jupyter notebook).
 - Spatial Database Design Project:
“National Parks Recreational Database”-Create database to integrate visitation records, facilities, and spatial data inside or nearby national parks using PostgreSQL
- Coursework:**
- Interactive Cartography & Geovisualization:
use HTML/CSS/JavaScript to create web maps
 - GIS Development Practicum:
create a workflow for transportation open data aggregation, open data publishing, and spatial data management and visualizations
- Sep. 2011-Jun. 2015** **National Central University, Taoyuan, Taiwan**
BSc in Civil Engineering
- EAC accredited program.
 - Relevant coursework: Surveying, Surveying Practice, Photogrammetry , Engineering Statistics, Numerical Analysis, Transportation Engineering, Construction Management.

WORK EXPERIENCE

- Jan. 2022-Aug. 2022** **Student GIS Metadata Technician**
Robinson Map Library, UW-Madison Department of Geography *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.
- Aug. 2019-Jun. 2021** **Assistant Engineer**
Ministry of Transportation and Communication (MOTC) *Taipei, Taiwan*
- Coordinated the mask distribution (logistics) project for COVID-19.
 - Evaluated communication task guidelines for air, shipping, and road transportation.
 - Updated, maintained, and delivered routine mobilization data from 9 agencies.
 - Arranged the annual training program for senior officers and project leaders.
- Feb. 2018-Jul. 2021** **Junior Engineer**
Freeway Bureau, MOTC *New Taipei, Taiwan*
- Examined and revised environmental impact assessment reports.
 - Participated in safety and health training courses about freeway maintenance.
 - Held environmental education events to educate all employees of the Freeway Bureau including the director.
 - Digitized Taiwan’s freeway historical slides and photos.

- Nov. 2016- **Junior Engineer**
Feb. 2018 *Taiwan Area National Expressway Engineering Bureau, MOTC Taipei, Taiwan*
TANEEB, MOTC was the authority responsible for new freeway construction by the Taiwan central government before Feb. 2018.
- Examined design drafts and contracts of national bridges.
- Jul. 2014- **Engineer Intern**
Aug. 2014 *CECI Engineering Consultants, Inc. Taipei, Taiwan*
- Gained transportation design and planning experience at the most prominent civil engineering design companies 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.

SKILLS

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

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

Programming: Python, SQL, C++ (on Visual Basic platform), HTML/CSS/ JavaScript

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

Database System: PostgreSQL (with PostGIS)

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