

## KUANG-CHENG, CHENG

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

### EDUCATION

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- Sep. 2021-  
May. 2023**     **University of Wisconsin-Madison, Madison, WI**  
**MS in Geographic Information Systems and Cartography**
- GPA: 3.83
- 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
  - Geovisualization and UI/UX Design Project:  
“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 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.
  - GPA: 3.34
  - Relevant coursework: Surveying, Surveying Practice, Photogrammetry, Engineering Statistics, Numerical Analysis, Transportation Engineering, Construction Management.

### WORK EXPERIENCE

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- Jan. 2022-  
Aug. 2022**     **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 using Python.
- Aug. 2019-  
Jun. 2021**     **Assistant Engineer**  
*Ministry of Transportation and Communication (MOTC)*     *Taipei, Taiwan*
- Coordinated the mask distribution (logistics) project for COVID-19.
  - Processed mask demand and accounting data, and analyzed the mask demand trend
  - 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- Feb. 2018**     **Junior Engineer**  
*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- Aug. 2014**     **Engineer Intern**  
*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**

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- 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**

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- 2014**     **Team Leader**  
*Fabrication of Concrete Mini Canoe Competition between National Central University and Tokyo Institute of Technology*
- Won 2<sup>nd</sup> 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**

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**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