

Pengyu CHEN

📍 Columbia, SC, USA ✉ pengyuc@email.sc.edu 🔗 pengyu-gis.github.io 🌐 Pengyu-gis

About Me

A highly motivated and passionate individual with a strong background in GIScience and a deep interest in Human-related Computing. Experienced in research volunteering and team leadership. Excited about exploring intersections between GIScience, IoT, and statistical analysis with a focus on leveraging human-related computing for meaningful research.

Education

University of South Carolina Sept 2024 – May 2026
M.S. in Geography

- TA scholarship

Wuhan University of Technology Sept 2020 – June 2024
B.S. in Geographic Information Science

Academic Experience

Visiting Student & Research Assistant Wuhan, China
Wuhan University July 2023 – July 2024

- Trained YOLO-based object detection algorithm and deployed model compression to the K210 microcontroller.
- Application: Detecting Tibetan brown bears and using K210 to drive water pumps and bear spray.
- Currently have a Chinese core journal in submission.
- Supervisor: Prof. Teng Fei

Research Assistant Wuhan, China
Wuhan University of Technology June 2023 – June 2024

- Focus on Image Segmentation, Knowledge Map, Remote Sensing.
- Supervisor: Prof. Wei Cui

Research Intern Clemson, SC, USA
Clemson University Sept 2022 – Jan 2023

- Data processing, data cleaning, and curve generation using MATLAB and Python.
- Published paper in the Journal of Transport Geography.
- Supervisor: Dr. Chao Fan

Independent Innovation Project Wuhan, China
Wuhan University of Technology July 2022 – Oct 2023

- Used CNN to identify thermal power plants and neural network model to predict carbon emissions.
- Supervisor: Prof. Wei Cui

Industry Experience

Algorithm Intern Xuzhou, China
XCMG Road Machinery Division July 2022 – Aug 2022

- Developed digital roads using Leica software and presented results with ArcGIS.
- Implemented and modified curve fitting algorithms for practical applications.
- Supervisor: Bowen Wu

Volunteer Experience

Development Team Leader, Members of the Council

GISinfo (Subprojects under GISphere)

Wuhan, China

Feb 2022 – present

- Developed backend using Django framework with Django REST Framework APIs, connected to MySQL database.
- Built front-end with Vue, managed user demand pool, and led backend development.
- Check Our Website – <http://gisphere.info>
- Supervisors: Dr. Yuhao Kang, Dr. Shan Ye

Website Operations Volunteer

ISUI (Urban Informatics)

Wuhan, China

Feb 2023 – July 2023

- Built backend with PHP and frontend with Vue, hosted on WordPress.
- Developed automated email delivery system and payment/receipt system.
- Website: <http://isocui.org>
- Supervisors: Dr. Rui Cao, Prof. Xintao Liu

Awards

2021 Huazhong Cup Mathematical Modeling Competition, Third Prize

MathorCup Modeling Competition, Third Prize

2022 Huazhong Cup Mathematical Modeling Competition, Second Prize

Publications

Socio-demographic inequalities in the impacts of extreme temperatures on population mobility

June 2023

Xinyue Gu, Pengyu Chen, Chao Fan

[10.1016/j.jtrangeo.2023.103755](https://doi.org/10.1016/j.jtrangeo.2023.103755) [↗](#)

Multi-Agent Path Optimization Based on STA* Algorithm

Nov 2022

Ruixiang Cheng, Xinyu Wang, Pengyu Chen, Jiaxin Liu

Impacts of Ethiopia Dam on Vegetation and Water and Ecological Countermeasures

Nov 2022

Pengyu Chen, Tengyuan Liang, Zibin Wu

[10.1088/1755-1315/1011/1/012044](https://doi.org/10.1088/1755-1315/1011/1/012044) [↗](#)

Technologies

Programming Languages: Python, C#, Java, C++

Software: MySQL, Unity, Unreal Engine, ArcGIS, QGIS, MATLAB

Languages: English (TOEFL iBT 102), Chinese