

# Yutong Jiang

(+1) 608-698-6722 | jiangyutong018@outlook.com | <https://felix018jiang.github.io/>

## EDUCATION

### University of Pennsylvania

Aug 2024 – May 2025

*M.S. in Urban Spatial Analytics*

### University of Wisconsin-Madison

Sep 2020 – May 2024

*B.S. in Cartography & GIS + Geography (People-Environment Subfield) | Minor in Digital Study*

The 49<sup>th</sup> Annual CaGIS Map Design Competition - *Arthur Robinson Award Honorable Mention*

## SKILLS

Coding: R, Python, Google Earth Engine, Arc.py, JavaScript, Leaflet, D3, Mapbox, PostgreSQL, MongoDB

GIS: ArcGIS suite, QGIS, ENVI, CloudCompare, Meshroom, API - Google Map, OpenStreetMap

Others: Figma, Microsoft Office Suite, Adobe Photoshop/Illustrator/Premiere, Blender

## RESEARCH EXPERIENCE

### Interactive Geovisualization Development In Presenting Annual Crop Yield Data

Aug 2023 – May 2024

*Spatial Computing and Data Mining Lab | Advisor: Dr. Qunying Huang*

- Engaged in creating and optimizing interactive web map visualizations based on Javascript, and leaflet. Enhanced the visualization aspect to include interactive features that allow users to explore and analyze crop yield data efficiently.
- Database Management: Designed, implemented a spatial database for the crop yield modeling and prediction; Developed data mining and analytic functions to extract and deminatee valuable information from the DB.

## WORKING EXPERIENCE

### Sinovation Ventures - Interactive Design Intern

May 2022 – Jul 2022

- Collaborated with a team of four to explore the application of AI algorithms using various programming languages.
- Designed a 20-page presentation and a 5-minute video to showcase findings, improving stakeholder engagement by 10%. Produced and recorded a detailed project presentation video. Conducted an online presentation to effectively communicate project results to stakeholders.

### Shanghai City GIS Developing Co.,Ltd. - Data Processing and Management Intern

May 2021 – Aug 2021

- Digitized and georeferenced a printed 500-square-mile map of Shanghai map of Shanghai using ArcMap and ArcGIS Pro, improving spatial accuracy by 20%. Integrated geospatial data from various sources to enhance spatial accuracy and perform advanced geospatial data analysis. Analyzed geospatial data in R, identifying trends that enhanced urban planning insights by 15%. Using annotated map data to train AI algorithm in identifying map elements and key image recognition.

## PROJECTS EXPERIENCE

### Planning for resilience to natural hazards -

- Evaluates the development of a Natural Wildfire Risk Index (WRI) in Butte County, California, by examining the 2018 Paradise Camp Fire. The study employs methodologies to integrate multiple GIS layers - ncluding land use, vegetation types, population density, and fuel accumulation - to assess wildfire risks in Butte County.
- Create a Wildfire Risk Map of California, offering a nuanced tool for policy makers and emergency services to prioritize fire prevention measures and improve community resilience against future wildfire events.

### Predicting Bikeshare Demand in Jersey City -

- Analyzed Jersey City's Citi Bike demand using spatial, temporal, and weather data to develop predictive models, improving rebalancing strategies for high-demand stations. Key insights revealed peak usage during weekday PM rush hours and demand concentration along the Hudson River.

### Train Delay Time Prediction -

- Developed Delay Detective, an interactive predictive tool for NJ Transit that leverages geospatial, weather, and operational data to forecast train delays and provide real-time notifications for commuters. Conducted spatial-temporal and statistical analyses to identify key delay factors and optimize resource allocation, improving transit reliability and commuter satisfaction.
- Conducted data preprocessing, feature engineering, and model optimization, delivering actionable insights to enhance on-time performance and inform strategic decision-making in transit operations.

### Transit Oriented Development Planning -

- Conducted a spatial and demographic analysis of Transit-Oriented Development (TOD) in Washington D.C. (2012–2022), highlighting gentrification trends, racial shifts, and income growth near metro stations. Developed visualizations and statistical insights to inform equitable urban planning and address socioeconomic disparities.
- Created detailed visualizations and statistical insights to highlight gentrification trends, income growth, and demographic shifts, providing recommendations for equitable urban planning and inclusive transit development policies.