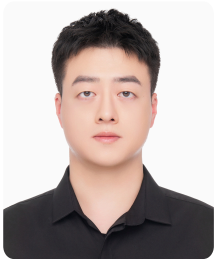
Zhiqing Pan | 潘志清

Brief Introduction



I have a bachelor's degree in Geodesy and Geomatics from Shandong University of Science and Technology. During my undergraduate period, I mainly studied GIS, remote sensing technology, cartography, geodesy, and other related courses. I participated in several projects, including WebGIS development, spatial data processing, and visualization. I am proficient in programming languages such as JavaScript, TypeScript, Python, familiar with front-end development technologies, familiar with the basic principles and applications of geographic information systems, and have strong spatial data processing and visualization capabilities.

Education

- 2020.09 - 2024.06: B.S. in Geodesy and Geomatics, Shan Dong University of Science and Technology, Qingdao, China.

Experience

My undergraduate thesis is "Shanghai Commuting Patterns Unveiled through Shared Bicycle Data", which mainly discusses the spatial distribution characteristics of shared bicycle commuting in Shanghai and the spatial distribution of the ebb and flow of bicycles and possible reasons.

In terms of WebGIS development, I focus on the implementation of spatial algorithms and the visualization of geographic information data on the browser side. I have experience in efficiently rendering large-scale geographic data. At the same time, I have a certain research on the underlying principles of web map engines, familiar with concepts such as WebMercator projection, tiled maps, vector maps, and implemented a web map rendering framework similar to Leaflet.js.

In addition, I also participated in a project on the image segmentation of human lower limb bone joints. The project is mainly based on the improved U-Net network structure, which improves the accuracy of bone joint image segmentation by fusing the axial attention mechanism. During the development of the web platform for this project, I communicated with the Cornerstone3D development team to optimize the compatibility and development experience of the Cornerstone3D front-end medical image rendering framework with Vue and Vite.

Projects

- WebGIS : RVGeo, a TypeScript library for spacial information analysis and visualization(demo). RVScripter, a web map rendering framework similar to Leaflet.js(demo).
- Medical imaging & Machine learning: Contributed to optimizing the development experience of the Cornerstone3D front-end medical imaging rendering framework. GitHub link

Contact me

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