

# Wenqi He

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github.com/galmungral

## Education

### University of Illinois Urbana-Champaign

*Master of Computer Science*  
Dec. 2023 (expected) // Urbana, IL, US

### Georgia Institute of Technology

*B.S. in Computer Science, summa cum laude*  
*Minor in Physics*  
Dec. 2019 // Atlanta, GA, US

## Personal Projects

A GPU-accelerated 2D vector graphics renderer  
A stack-oriented esoteric programming language  
A raster map tile renderer  
A canvas-based UI framework  
A server-side interactive React renderer  
A front-end framework with a module bundler

## Coursework

### Graphics / Physics

Interactive Computer Graphics  
Computational Photography  
Scientific Visualization  
Numerical Analysis  
Classical Differential Geometry  
Partial Differential Equations  
Ordinary Differential Equations  
Parallel Programming  
General Relativity  
Quantum Mechanics  
Computer Simulation

### Languages / Networks

Optimizing Compiler Construction  
Programming Languages  
Information Retrieval  
Natural Language Processing  
Distributed Algorithms  
Distributed Systems  
Computer Networking  
Relational Databases  
Information Security

## Work Experience

### National Center for Supercomputing Applications

*Graduate Research Assistant, Visual Analytics*  
Aug. 2022 - Present // Urbana, IL, US

- Developed software for scientific researchers, with a focus on biomedical and geospatial data visualization.
- Responsible for the full-stack development and deployment of the BiteMap application for the INHS-MEL.
- Created interactive cartographic visualizations using OpenLayers, GeoJSON and public census data.
- Participated in the maintenance of PhyloDiver, an interactive tool for visualizing tumor phylogenies.

### Gllue Software

*Frontend Engineer, Applicant Tracking System*  
Nov. 2020 - Nov. 2021 // Shanghai, China

- Collaborated with multiple teams to build web applications, WeChat mini-programs, services and libraries.
- Participated in the maintenance of the drag-and-drop user interface builder that powers the ATS system.
- Responsible for the front-end integration of a new Single Sign-On system for multiple products.

### Étude LLC

*Software Engineer, Founding Team*  
Aug. 2019 - Aug. 2020 // Atlanta, GA, US

- Developed several features of a desktop PDF reader, including table of contents parsing and text highlighting.

## Skills

### Languages

C, C++, TypeScript, JavaScript, GLSL, HTML, SVG, CSS, Sass, LESS, PHP, Bash, Zsh, Python, Java, SQL, MATLAB, Haskell, OCaml, Common Lisp, Swift, Rust, WebAssembly

### Frameworks / Libraries

React, Angular, Node.js, Electron, Next.js, Redux, MobX, ECharts, NumPy, SciPy, PyTorch, OpenCV, SwiftUI, UIKit

### Development Tools

Visual Studio Code, Vim, Git, Make, LLVM, esbuild, Babel, Rollup, webpack, Parcel, Vite, Tailwind CSS, Cypress, Jest, Puppeteer, ESLint, Prettier, TypeDoc, GitHub Actions, GitLab CI, Docker