# Wenqi He

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#### **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, Minor in Physics Dec. 2019 • Atlanta, GA, US

# **PROJECTS**

A GPU-accelerated 2D vector graphics renderer
A stack-oriented esoteric programming language
A basic raster map tile renderer
A canvas-based UI framework
A server-side interactive React renderer
A frontend 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 / Communication**

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

#### **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 (ATS) 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