

Wenqi He

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Education

University of Illinois Urbana-Champaign
Master of Computer Science
Dec. 2023 (Expected)

Georgia Institute of Technology
B.S. in Computer Science, summa cum laude
Minor in Physics
Dec. 2019

Personal Projects

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

Coursework

Graphics & Physics

Interactive Computer Graphics
Scientific Visualization
Computational Photography
Parallel Programming
Quantum Mechanics
General Relativity (Graduate-level)
Differential Geometry
Partial Differential Equations
Ordinary Differential Equations
Numerical Analysis
Computer Simulation

Language & Communication

Optimizing Compiler Construction
Programming Languages
Natural Language Processing
Information Retrieval
Distributed Algorithms
Distributed Systems
Computer Networking
Database Systems
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 development and deployment of the BiteMap project.
- Created interactive cartographic visualizations using OpenLayers and GeoJSON.
- Participated in the maintenance of PhyloDiver, a visualization tool for tumor phylogenies.

Gllue Software
Front-end Engineer, Applicant Tracking System
Nov. 2020 - Nov. 2021 / Shanghai, China

- Collaborated with multiple teams to build web applications, WeChat mini-programs and libraries.
- Participated in the maintenance of the user interface builder that powers the customizable ATS.
- 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 an NLP-powered PDF reader, including a table of contents parser.

Skills

Languages

C, C++, Java, TypeScript, JavaScript, WebGL, HTML, SVG, CSS, Sass, LESS, PHP, Python, MATLAB, Mathematica, Haskell, PureScript, OCaml, Swift, Rust, Go, WebAssembly

Frameworks & Libraries

React, Angular, Node.js, Next.js, Electron, RxJS, Redux, MobX, ECharts, NumPy, SciPy, Matplotlib, PyTorch, OpenCV, PyVista, SwiftUI, UIKit, AppKit, Core Graphics

Tools

Visual Studio Code, Vim, Git, Make, LLVM, Emscripten, es-build, Babel, Tailwind CSS, Rollup, webpack, Parcel, Vite, Jest, Cypress, ESLint, Prettier, TypeDoc, GitHub Actions, GitLab CI, Docker, watchtower