

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

Bachelor of Science in Computer Science

Minor in Physics

Dec. 2019 | Atlanta, GA, US

Personal Projects

GPU-accelerated Vector Graphics Renderer
Simple Software Rasterizer
Simple Software Raytracer
Simple Raster Map Tile Renderer
Canvas-based User Interface Framework
Stack-oriented Esoteric Programming Language
Server-side Interactive React Renderer
Frontend Framework and Module Bundler

Relevant Coursework

Graphics & Physics

Scientific Visualization
Interactive Computer Graphics
Computational Photography
Parallel Programming
Quantum Computing
Numerical Analysis
Partial Differential Equations
Differential Geometry

Language & Communication

Compiler Construction
Relational Databases
Distributed Algorithms
Computer Networking
Information Security
Information Retrieval
Natural Language Processing

Work Experience

National Center for Supercomputing Applications

Graduate Research Assistant, Visual Analytics

Aug. 2022 - Present | Urbana, IL, US

- Developed software for scientific researchers, focusing on biomedical and geospatial data visualization.
- Responsible for the full-stack development and deployment of the BiteMap application for the INHS MEL.
- Created cartographic visualization for tick bite data using OpenLayers, GeoJSON and the Census Bureau's APIs.
- 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.
- Contributed to the drag-and-drop user interface builder framework that powers the ATS customization system.
- Responsible for the frontend integration of a new Single Sign-On system for multiple products.

Étude LLC

Software Engineer, Founding Team

Aug. 2019 - Aug. 2020 | Atlanta, GA, US

- Implemented several features of the PDF reader, including table of contents parsing and text highlighting.

Technical Skills

Languages

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

Frameworks & Libraries

Angular, React, Node.js, Next.js, NumPy, SciPy, PyTorch

Development Tools

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