

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

Server-side Interactive React Renderer

Frontend Framework and Module Bundler

Stack-oriented Esoteric Programming Language

RELEVANT COURSEWORK

Graphics, Physics & Scientific Computing

Scientific Visualization

Interactive Computer Graphics

Computational Photography

Parallel Computing (GPU)

Numerical Analysis/Methods

Partial Differential Equations

Differential Geometry

General Relativity

Quantum Mechanics

Quantum Computing

Language, Data & Communication

Compiler Construction

Relational Databases

Distributed Algorithms/Systems

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 of tick bite data using GeoJSON, OpenLayers, PostgreSQL and 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.
- 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 desktop 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