Wenqi He

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EDUCATION

University of Illinois Urbana-Champaign

Master of Computer Science
Dec. 2023 | 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 2D Vector Graphics Renderer
Simple Software Rasterizer and Raytracer
Simple Vector and Raster Map Tile Renderer
Canvas-based User Interface Framework
Stack-oriented Esoteric Programming Language
Frontend Framework and Module Bundler
Server-side Interactive React Renderer

RELEVANT COURSEWORK

Graphics & Scientific Computing

Scientific Visualization
Interactive Computer Graphics
Computational Photography
GPU Parallel Computing
Numerical Analysis/Methods
Partial Differential Equations
Differential Geometry
General Relativity

Language & Communication

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

WORK EXPERIENCE

National Center for Supercomputing Applications

Research Software Engineer, Visual Analytics
Jan. 2024 - Present | Urbana, IL, US
Graduate Research Assistant, Visual Analytics
Aug. 2022 - Dec. 2023 | Urbana, IL, US

- Developed web applications for diverse research projects, with a focus on visualizing geospatial and biomedical data.
- Created geographic visualizations for various datasets using MapLibre GL JS, OpenLayers, GeoJSON, and PostGIS.
- Contributed to the maintenance of PhyloDiver, a web-based 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 develop web applications, WeChat mini-programs, services, and libraries.
- Contributed to the drag-and-drop user interface builder framework that powers the ATS customization system.
- Led the frontend implementation and integration of a new Single Sign-On system across multiple product lines.

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, WebAssumbly, 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