

Andrew Borders

atborders1@gmail.com | (512) 739-3210 | aborders.dev

Education

University of Michigan

College of Engineering, BSE of Computer Science

GPA: 3.80 | Dean's List

- Relevant Courses: Operating Systems, Web Systems, Computer Security, Computer Architecture, GPU Programming, Video Game Development

College of Engineering, MSE of Computer Science

- Areas of focus: Computer Architecture and Parallel Computing

Ann Arbor, MI

August 2020 - May 2024

August 2024 - May 2025

Experience

Lagena

Co-Founder and Full-Stack Developer

- Designed and built a dynamic frontend using Next.js, React, and SCSS
- Collaborated on a backend api integrating stable diffusion, text-to-speech, and large language models for real-time avatar interaction.

May 2024 - Present

WayWiser

Backend Software Development Internship

- Created an SMS-integrated AI assistant using OpenAI's API
- Encoded conversations and user data in a vector database, increasing the AI assistant's context size by allowing it to query relevant info through the database

Austin, TX

May 2023 - May 2024

Projects

Verilog RISC-V Multiprocessor

Group Project

- Wrote a RV32+M multiprocessor with R10k architecture, N-way superscalar execution, GSHARE branch prediction, OoO loads, and I-cache prefetching

Aug 2024 - Dec 2024

WebGPU Renderer

Independent Project

- Wrote a real-time blinn-phong renderer in Web-GPU, the successor to WebGL
- Hard-coded a scene with dynamic objects, lighting, and camera
- Set up CICD, generating and deploying a static site through github actions

Aug 2024 - Sep 2024

CUDA Fractal Zoom Renderer

Independent Project

- Build an efficient fractal zoom renderer in CUDA with dynamic parallelism and temporal caching

Nov 2024 - Jan 2025

Nonprofit Web Development

Freelance Work

- Designed and maintained static sites, giving local non-profits internet presence

Feb 2020 - Present

Skills

Programming Languages: C++ | GLSL | CUDA | Python | Go | Javascript | SQL | HTML | CSS

API's & Technologies: OpenAI | AI(Vector) Databases | MongoDB | Vulcan | Twilio | Redis | Azure Cloud

Software: Blender | FL Studio | Radiant Black