

# Phoenix Ada Rose Mandala

📍 Lawrence, KS    ✉ ada.mandala@pm.me    🌐 cubething.dev    in ada-mandala    🐙 ada-x64

## Experience

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### Software Engineer

*A.Team Contractor*

**Typescript, Rust/WASM, Graphics APIs**

*Jan 2025 – Current*

- Selected to join an exclusive software development contracting platform for senior engineers.
- Developed various software projects, ranging from full-stack greenfield solo projects to large-scale team enterprises.

### Software Engineer

*Prospective*

**Rust, WASM, Typescript, Python, CI/CD**

*June 2023 – June 2024*

- Designed and developed the Prospective data visualization dashboard using the Perspective library, integrating with AWS, Azure, Google Cloud, and DigitalOcean.
- Created the plugin API and enhanced visual features; collaborated on JupyterLab extension, C++ data engine rewrite, and integrations with Kafka and Kerberos.

### Software Engineer

*Valorem Reply / Disney*

**Rust, WASM, Python, Embedded**

*June 2022 – May 2023*

- Contracted with Valorem Reply to bring ESPN+ to PlayStation 5 using a custom Rust framework.
- Developed infrastructure, implemented concurrent algorithms, and simplified analytics with a custom macro library; credited with “saving the project.”

### Front-End Engineer

*Roll20*

**Javascript, SCSS, HTML5, NodeJS**

*October 2019 – August 2021*

- Developed front-end for user-driven IP BurnBryte, utilizing the Charactermancer feature and providing feedback to improve the API and developer experience.
- Created a local development environment mimicking the Roll20 frontend, boosting team productivity.

### Software Engineer

*Freelance*

**Javascript, PHP, C#, Angular, React**

*June 2018 – July 2022*

- Designed, developed, and integrated full-stack solutions to meet client expectations.
- Worked with clients on short-term contracts in various industries including game development, healthcare, and business applications.
- Built green and brownfield projects on web, mobile, and desktop.

## Projects

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### Personal Website

[cubething.dev](https://cubething.dev)

**Typescript, Bun, L<sup>A</sup>T<sub>E</sub>X**

[ada-x64/cubething2](https://ada-x64/cubething2) 🐙

- Developed a full-stack, containerized web service capable of rendering L<sup>A</sup>T<sub>E</sub>X, hosting papers, and building and serving multiple applications.
- Created build tools similar to Vite from scratch.

### Custom Web Game Engine

**Rust, WASM, WebGPU**

[ada-x64/sundile\\_rs](https://ada-x64/sundile_rs) 🐙

- Developed a Rust-based graphics engine with WGPU for local and browser rendering. Utilizes WASM.
- Features include perspective cameras, .obj model rendering, and Blinn-Phong lighting.
- Implemented a custom asset engine for dynamic asset loading; project built from scratch for learning purposes.

## Education

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### University of Kansas

*BA Philosophy (Hnrs.), BA Mathematics*

**GPA: 3.8**

*Aug 2014 – Dec 2017*

- **Coursework:** Computational Theory, Philosophy of Mathematics, Formal Logic, Senior Essay

## Technologies

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### Languages

***Rust, Typescript, Javascript*** (*ECMAScript, Node, Bun, Deno*), ***HTML5, CSS, SCSS***, ***C, C++, C#, PHP, LaTeX, CoQ, Lean, Markdown***

### Front-End / Client-Side

***WASM (Rust/C++)***, ***React, Browser APIs***, ***Preact, Yew, Lit, Backbone, Underscore, Web Components, LiveKit, Svelte***

### Back-End / Server-Side

***Fastify, Express.js, PostgreSQL, Nginx, Server-Side Rendering, MySQL, Tower HTTP, SQLx, Axum***

### Dev Tooling

***prettier, eslint, esbuild, git, webpack, wasm-pack***

### Cloud Technologies

***Digital Ocean, PaaS, Serverless***, *Microsoft Azure, AWS, Google Cloud*

### SysAdmin, Build Engineering, CI/CD

***Github Actions, Docker, NodeJS, Bun, zsh, bash, pwsh***, *UNIX, Linux, MacOS, WSL2, Deno, pandoc, ripgrep, bat, sed, awk, Kafka*

### GPU

***WebGPU, OpenGL, GLSL, HLSL***, *Vulkan, three.js*