

Jerred Shepherd

<https://sjer.red>

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EDUCATION

- **Georgia Institute of Technology** Remote
Master of Science in Computer Science *August 2022 – Present*
- **Harding University** Searcy, AR
Bachelor of Science in Software Development; GPA: 3.18 *August 2015 – May 2019*

EXPERIENCE

- **Package Manager at Posit, PBC (formerly RStudio, PBC)** Remote
Software Engineer *September 2021 - Present*
 - **Front-end:** Migrated front-end build from Webpack to Vite. Re-wrote front-end in TypeScript using the Vue Composition API. Migrated client-side state from Vuex to TanStack Query.
 - **Documentation:** Simplified the build process for the product's documentation using Earthly. Significantly increased the productivity of both developers and technical writers.
 - **Build system:** Analyzed existing build system consisting primarily of Makefiles, Docker, and Jenkins. Rewrote Makefiles to be more understandable, performant, and friendly to developers onboarding to the project. Added support for multiple operating systems and CPU architectures.
 - **End-to-end tests:** Created infrastructure and command-line tooling to run end-to-end tests against many Linux distributions on ephemeral AWS instances.
- **Systems Manager at Amazon Web Services** Seattle, WA
Software Development Engineer *July 2019 - August 2021*
 - **State Manager resource groups feature:** Designed, implemented, tested, and deployed a feature which added support for resource group targets to AWS Systems Manager's desired state configuration service.
 - **Developer productivity improvements:** Developed several productivity tools for use by the State Manager team which led to a significant time savings when developing and deploying code including a notification service for CI/CD events, a service operations report generator, and an infrastructure CLI toolkit.
 - **Intern mentorship:** Mentored an intern during their twelve week internship who was ultimately offered a full-time position. Identified a project and scoped the requirements for the intern. Helped the intern during their onboarding, design, and the development of their project which was deployed to production.
 - **Front end for AWS Change Manager:** Implemented the front-end for AWS Change Manager using React and TypeScript.
 - **Service fleet optimization:** Identified and implemented ideal server hardware configuration for team's software stack. Updated service dependencies and language runtimes. These improvements led to a 66% reduction in server infrastructure cost.
 - **Built service in top secret AWS region:** Modified service code and infrastructure while supporting requirements top secret security constraints.
 - **Infrastructure improvements:** Significantly reduced the time to build a new AWS region for the State Manager service. Identified and implemented process improvements which led to a drastic reduction in operational work.
- **Systems Manager at Amazon Web Services (Internship)** Seattle, WA
Software Development Engineer Intern *May 2018 - July 2018*
 - **State Manager document sharing:** Designed, implemented, tested, and deployed a feature which adds cross-account document sharing for AWS Systems Manager's desired state configuration service.

PERSONAL PROJECTS

- **Discord Plays Pokmon:** Play Pokmon co-operatively with your friends on the Discord social application. Runs entirely in-browser on a GPU-accelerated Docker container with support for running on AWS. Audio and video is streamed via Discord, with game input received through a Discord text channel.
- **Castle Casters:** A cross-platform game and game engine written from scratch in Java 11. Uses OpenGL for 2D graphics rendering and netty for low-level networking with TCP and UDP sockets. Includes an AI trained with a genetic algorithm and a robust implementation of the Quoridor board game.