

# Jerred Shepherd

<https://sjer.red>

Email: [root@sjer.red](mailto:root@sjer.red)

GitHub: <https://github.com/shepherdjerred>

## EDUCATION

---

- **Georgia Institute of Technology** Atlanta, GA  
*Master of Science in Computer Science (OMSCS, Part-time)* August 2022 – Present
  - **Coursework:** Distributed Systems, Compilers, Advanced Operating Systems
- **Harding University** Searcy, AR  
*Bachelor of Science in Software Development* August 2015 – May 2019

## EXPERIENCE

---

- **Pinterest** Seattle, WA  
*Software Engineer II* September 2024 - Present
  - **Measurement Hub:** Leading frontend migration of advertiser measurement platform from 10-year-old POC to production-grade system, directing 5 engineers across thousands of experiments and millions of users. Achieved 99% report reliability (up from 50%). Used LLMs extensively for implementation, design docs, and bug fixes.
  - **Engineering influence:** Set frontend patterns adopted by 30 engineers across 4 teams: strong typing, validation at boundaries, integration testing, and accessibility.
  - **Conversion Lift:** Owning end-to-end migration of Pinterest Conversion Lift as sole technical lead. Driving API schema adoption (previously untyped) and database normalization from JSON blob to relational model. Directing 3 engineers across full-stack implementation.
  - **AI tooling & adoption:** Built internal tools giving LLMs safe access to internal systems and data. Drove org-wide AI adoption through presentations and hands-on enablement. Authored coding agent skills, guidelines, and CLI tools automating oncall. Established static analysis guardrails for AI-assisted development.
- **Posit Software** Remote  
*Software Engineer* September 2021 - June 2024
  - **Frontend:** Led rewrite of Package Manager frontend to Vue 3 & TypeScript, cutting 70% of dependencies and 90% of bundle size. Led UI redesign improving first-use experience and accessibility.
  - **Testing infrastructure:** Designed containerized framework enabling isolated local testing of any component.
  - **macOS cross-compiler:** Built cross-compiler toolchain targeting arm64 macOS on Kubernetes. Guided team to production, enabling R package builds with C/C++/Fortran/Rust.
  - **Developer experience:** Shortened feedback loops by speeding up CI and dev environments. Set up automated linters, formatters, and dependency updates.
  - **Backend:** Built Go backend APIs for authentication token generation. Migrated to portable static binary, simplifying deployment across Linux/macOS.
- **Amazon Web Services** Seattle, WA  
*Software Development Engineer* July 2019 - August 2021
  - **Backend:** Implemented features using distributed state machine with DynamoDB, SQS, Lambda, S3. Optimized fleet configuration for 66% reduction in server costs.
  - **Process automation:** Built tool to automatically root-cause issues using metrics and logs, reducing weekly manual effort from 4 hours to minutes.
  - **Operations:** On-call for service managing tens of millions of EC2 instances at thousands of requests per second. Root-caused incidents and resolved customer issues.

## SKILLS

---

TypeScript, Go, Java, Python, SQL, React, Vue, Astro, Bun, Kubernetes, Docker, AWS

## PROJECTS

---

- **Clauderon:** A session manager for AI coding agents (Claude Code, Codex, Gemini). Daemon architecture enables controlling all sessions from native apps (iOS, macOS) or web, with isolated Docker/K8s execution and zero-credential security.
- **Kubernetes Homelab:** A k3s cluster running on hardware at my home. Managed with cdk8s and ArgoCD.
- **Compiler:** Implemented a compiler from scratch for the Tiger language targeting MIPS assembly.
- **Paxos:** Implemented the Paxos consensus algorithm from scratch.
- **Game Engine:** Cross-platform Java game with OpenGL rendering, alpha-beta AI, A\* pathfinding, and networking.