

Allison Embrey Software Engineer

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👤 PROFILE

I care deeply about the security, scalability, maintainability, and quality of the software that I work with. I'm always on the lookout for how to add value to the user's experience, and I strive to maintain a safe and collaborative environment with my coworkers.

🔗 RELEVANT TECHNICAL EXPERIENCE

Software Engineer & Co-Creator, *Open-Source Project* [↗](#) 2024 – present
DataLoaf is an open-source, self-hosted product analytics platform.

- Automated the setup and teardown of more than 50 AWS resources via Terraform CLI tool, deploying in 4 steps
- Designed and implemented a data streaming pipeline in AWS, ingesting and storing at least 10,000 events per second
- Created a server-side SDK in Node.js to capture custom event and user data from client applications
- Built a React front-end dashboard to display graphs of common product analytics aggregations
- Produced a TypeScript back-end service to efficiently query and process event data using SQL and a REST API
- Deployed back-end services on EC2 instances using Docker and served the front-end through a containerized Nginx
- Refactored back-end module to increase readability and maintainability, reducing size by 80%
- Authored technical case study of DataLoaf's problem domain, exploring key engineering decisions and their tradeoffs
The case study can be read at: data-loaf.com [↗](#)

Software Engineer, *deeproot Pinball* 2018 – 2020
deeproot aimed to create affordable full-scale pinball machines for family homes.

- Translated hundreds of game rules into event-driven Go code, built using an in-house framework
- Standardized common patterns to reduce game size by 30% by creating an abstraction layer on top of the framework
- Decoupled back-end from front-end by developing a small framework to synchronize and wait for input events to finish
- Authored new game features, including a rule set for game modes and a boss fight sequence
- Integrated game software with playfield hardware by building power and communication systems for prototype games
- Diagnosed and resolved bugs, using holistic understanding to determine whether they originated in hardware or software
- Monitored games on-site at a major pinball convention, debugging issues real-time in a live environment
- Collaborated remotely with product leaders, designers and other engineers to coordinate design changes
- Interfaced with stakeholders to design and implement a settings dashboard for pinball games

📚 SKILLS

Languages

JavaScript/TypeScript, Go, Java, C/C++

Back-End / Front-End

Node.js, Express, Postgres, MongoDB, React

Cloud

AWS (API Gateway, Lambda, Data Streams, Firehose, Simple Storage Service (S3), Redshift), Digital Ocean Droplets

Other

Git/GitHub, Linux, Nginx, Terraform, Docker, Jest, REST APIs, object-oriented programming, functional programming

🎓 EDUCATION

University of Texas at San Antonio 2008 – 2014
Minor in Computer Science, Bachelor of Science in Mechanical Engineering