Allison Embrey Software Engineer

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👤 PROFESSIONAL SUMMARY

As a full-stack software engineer, I'm able to simplify complex problems by breaking them down into actionable steps. I'm familiar with various programming languages and have hands-on experience with AWS cloud technologies. I'm the kind of engineer who enjoys digging into the details and finding solutions that make everyone's job a little bit easier.

〈⁄〉 TECHNICAL EXPERIENCE

Software Engineer & Co-Creator, *Open-Source Project* ⎘   Jan 2024 – May 2024
DataLoaf is an open-source, self-hosted product analytics solution for small-medium teams.

- Produced a TypeScript querying service to facilitate event data retrieval and processing via SQL and a REST API
- Built a React frontend dashboard to display aggregations based on event type, time-frame, and user/event filters
- Automated AWS infrastructure setup/teardown via a Terraform/Go CLI tool, provisioning 50+ resources with one command
- Designed and implemented a real-time data pipeline with the potential to scale up to ingesting 1M events per second
- Created a server-focused SDK to capture event and user data and send it to Amazon API gateway for placement into pipeline
- Deployed back-end services on EC2 instances using Docker and served the front-end through a containerized Nginx
- Refactored backend module, consolidating several hundred lines of duplicated code and simplifying program maintenance
- 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*   Oct 2018 – Oct 2020
deeproot aimed to create affordable full-scale pinball machines for family homes.

- Programmed complex, event-driven game logic for pinball machines using Go and a proprietary framework
- Extended framework with abstraction layer that standardized common pinball game features, shortening development time
- Created mode-based gameplay that allowed players to activate specific challenges and objectives during play
- Implemented sound and light effects tied to gameplay actions, providing immediate feedback to the player
- Engineered a system that allowed entire gameplay elements to be enabled or disabled with a single line of code
- Wrote and maintained a bash utility script that scanned the codebase to report unimplemented sound effects
- Designed and implemented an interface to decouple variable names in game layer from frontend event listeners
- Monitored games on-site at a major pinball convention, resolving issues real-time in a live environment

📚 SKILLS

Languages: JavaScript/TypeScript, Python, Go, SQL, Java, Clojure

Full-Stack: Node.js, Express, React, Postgres, MongoDB, REST, GraphQL

Cloud/Infra: Docker, Nginx, Terraform, AWS (API Gateway, Lambda, Data Streams, Firehose, S3, Redshift)

Other: Git/GitHub, Bash/Linux, HTTP, TLS, TCP, UDP, Jest, OOP, functional programming

🎓 EDUCATION

University of Texas at San Antonio ⎘   2008 – 2014
Minor in Computer Science, B.S. in Mechanical Engineering

Launch School ⎘   2021 – 2024
Multi-year online program focused on Software Engineering fundamentals