William Yennie

willyennie.com wryennie@gmail.com Long Island, NY

EXPERIENCE

Software Engineer; Creator, *Tabletop Ledger* 2024 – 2025

Developed Tabletop Ledger, a web application designed to help tabletop RPG game masters organize their campaigns.

- Built a tree-structured page management system featuring a WYSIWYG text editor, allowing game masters to efficiently document campaign details.
- Integrated a chat interface that delivers context-aware insights based on the page a user is viewing, enhancing session preparation and organization.
- Implemented WebSocket-based streaming for AI API responses, ensuring fast and responsive delivery of contextual insights to users.
- Conducted user feedback sessions to improve UX/UI design and functionality, resulting in a 20% increase in user satisfaction during beta testing.

Open Source Contributor, *ZenML* 2024

Developed a chatbot feature for the ZenML VSCode extension, enabling users to optimize and troubleshoot ML pipelines through AI-driven interactions.

- Integrated AI models like OpenAI's ChatGPT and Anthropic's Claude to provide contextual responses and optimize ML pipeline components.
- Engineered a dynamic UI for the chatbot, including dropdowns and interactive elements, and implemented state management for user-selected contexts, enhancing the chatbot's ability to provide relevant assistance and improving user experience.
- Utilized advanced JavaScript and TypeScript techniques to handle real-time message streaming and context-aware responses.

Software Engineer; Co-creator, *Firefly* 2022 – 2023

Firefly is an open-source observability framework, providing an overview of serverless function health through the use of metrics and traces.

- Created a custom OpenTelemetry collector capable of handling up to 500,000 metrics and trace data points per day, enhancing data collection efficiency.
- Implemented middleware for context propagation in traces, improving trace accuracy for asynchronous Lambda invocations, potentially benefiting over 1,000 invocations across multiple functions.
- Architected a telemetry pipeline using OpenTelemetry and Promscale, resulting in a 30% reduction in data retrieval times for performance monitoring.
- Developed a CLI tool to automate the instrumentation of Lambda functions and set up AWS infrastructure for emitting metrics from CloudWatch, reducing setup time by up to 40 hours.
- Automated AWS infrastructure setup and teardown with AWS SDK and Terraform, decreasing provisioning time from hours to under 10 minutes.
- Streamlined telemetry pipeline setup to 2 simple steps using Docker, simplifying deployment for the engineering team.
- Designed Grafana dashboards for serverless function telemetry, improving visibility into performance metrics for the engineering team.
- Authored technical case study on Firefly's development and use case (read the case study here).

SKILLS

Programming Languages — Ruby, JavaScript, TypeScript, **Frameworks & Libraries** — Ruby on Rails, React, Hotwire, Stimulus.js, **Web Technologies** — WebSockets, REST APIs, **Databases** — PostgreSQL, Redis, MongoDB, **Cloud & DevOps** — AWS, Docker, Terraform, **Tools** — Nginx, Linux, VSCode Extension API, **AI/ML** — AI Model Integration, Natual Language Processing (NLP), Contextual AI Responses, Tokenization and Streaming