

Ryan Taylor Rose

github.com/rytrose | rytrose.com | (330) 635 - 4365 | rytrose@gmail.com

Experience

Stripe – Software Engineer *October 2021 to Present*

- Build support for local payment methods increasing global availability for Stripe Terminal
 - Develop key management foundations to support cryptographic requirements of global card networks

Bose Corporation – Cloud Engineer II *October 2020 to September 2021*

Bose Corporation – Cloud Engineer I *June 2019 to October 2020*

- Technical lead and contributor to parallel cross-functional projects
 - Responsible for iOS (Swift) SDKs that enable research teams to run beta software experiments
 - Drive embedded and cloud development of a multi-product experimental home audio feature
- Design, develop, test, and maintain production microservices in Go, Python, and Node.js
 - Integrate with a federated identity provider to implement an OAuth 2.0-compliant authorization server, resource servers, and example clients to support partner integrations
 - Leverage Redis caching and Pulsar pub/sub messaging to handle high-throughput asynchronous operations on behalf of IoT speakers with low latency
 - Develop React web apps for users to manage their beta enrollments and integrations
 - Implement services that safely communicate with self-registered 3rd party clients and servers
 - Design RESTful and webhook HTTP APIs and contribute to public-facing developer documentation

Expressive Machinery Lab – Graduate Research Assistant *August 2017 to May 2019*

- Software lead on [TuneTable](#), a tangible user interface that teaches computational concepts to middle- and high-school students through algorithmic music creation
- Iterations employed computer vision (reactIVision), Processing (p5), openFrameworks (C++), web technologies (Web Audio API, Node.js, Electron), and Python

Education

Georgia Institute of Technology M.S., Music Technology *May 2019*

Case Western Reserve University B.S. Computer Engineering, B.S. Music – Saxophone *May 2017*

Side Projects

Flame Keepers (freelance contract work) *February 2021*

Developer on [Flame Keepers](#), a web-based perpetual music installation. Implemented a Node.js server using AWS S3 as a cheap, minimal database and storage facility. Integrated with Airtable for user and copy management.

Chronophonics *July 2020*

Developer on [chronophonics.art](#), a web installation for [NIME 2020](#). Created a series of networked musical interfaces that allow collaborative editing using a combination of Go websocket server, Google Firebase tools, and MongoDB.