

## Summary

**Technologies:** Rust, JavaScript / TypeScript, React, Dart / Flutter, Docker, Serverless

**Interests:** Music technology, DSP, generative art, user experience and accessibility, parsers and compilers

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## Experience

### Elektron Music Machines

*Rust Audio Developer*

May 2022 — present

- ▷ Building a development platform for the next generation of hardware music devices from Elektron, with a modern technical stack (*Rust*, *Protobuf*, *RocksDB*) and primary design goals of portability and flexibility.
- ▷ Prototyping the initial products on the new platform, integrating both legacy IP and new concepts to create a unique and compelling user experience. Knowledge gathered in this process is then used to iterate on the design of the underlying infrastructure.

### Fearless Solutions

*Software Engineer 2*

March 2021 — April 2022

- ▷ Adopted and expanded a prototype application built with *React* and the *Serverless Framework* into a production-ready state, and delivered it to users on time.
- ▷ Spearheaded an effort among technical personnel to improve code quality, test coverage, and user accessibility, leading to a significant decrease in defects and regressions pushed into the staging environment.
- ▷ Collaborated with security and operations teams to address findings from a pre-deployment audit. All findings were eliminated well in advance of the subsequent audit, and the deployment to production was able to proceed without incident.

### Visionist Incorporated

*Engineer 3*

August 2018 — February 2021

- ▷ Maintained and enhanced an audio processing and analytics service, with the API and administrative UI implemented using *Phoenix (Elixir)* and the audio DSP implemented in *Rust*.
- ▷ Scaled a suite of applications for real-time geographic data analysis up from prototype to production, focusing on performance and reliability. Improved communication between the development team and our user base to implement a faster and more robust feedback loop.

### Nu-Tek Precision Optical Corporation

*Staff Engineer 1*

May 2016 — August 2018

- ▷ Developed a 2D signal processing toolbox for MATLAB, for use in a specialized manufacturing environment. Supported a variety of ETL formats and domain-specific manipulations. Results could be visualized quickly, formatted with custom report templates using  $\LaTeX$ , or exported as program data for CNC correction processes.
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## Education

### University of Maryland, College Park

*Bachelor's of Science in Physical Sciences*

2012 — 2016

- ▷ Concentrations in Atmospheric and Oceanic Science, Chemistry, and Geology