Martin Barker

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Education

Oregon State University **Corvallis, OR**
B.S. in Applied Computer Science (Cybersecurity) *Sept 2015 – July 2019*
– Coursework in Databases, Distributed Systems, and Full-Stack Web Development (JS/TS, React, UI/UX).
– Member of student radio/TV; developed playlist archiving and metadata enrichment tools.

Experience

Allen Institute **Seattle, WA**
Software Developer III / Contractor *Nov 2024 – Present*
– Develop React-based visual components for high-load scientific data viewers used by researchers worldwide.
– Collaborate with designers to deliver performant and intuitive UIs; integrated **React (TypeScript)** with REST APIs and **FastAPI** backend.
– Refactored core UI flows for accessibility, responsiveness, and pixel-perfect alignment.
– Added integration tests, optimized rendering, and reduced load times by 30%.
– Debugged complex asynchronous data loading and rendering issues across multiple React layers and browser environments.
– Partnered with UX and visualization researchers to design creative data exploration interfaces with smooth animations.

Philips Ultrasound **Bothell, WA**
Senior DevOps / Software Developer *Feb 2022 – May 2024*
– Built internal dashboards and data visualization tools using **React**, **TypeScript**, and **Flask**.
– Implemented reusable UI components and enhanced UI/UX design consistency across multiple projects.
– Improved debugging and test coverage; wrote Jest/Cypress tests for complex user flows.
– Collaborated across engineering and product teams to plan front-end architecture for new tools.

Bungee Tech **Seattle, WA**
Software Engineer *Jan 2020 – Aug 2021*
– Developed high-traffic React + Node.js apps for retail analytics; contributed to both front-end and API layers.
– Collaborated with designers and PMs to translate mockups into scalable, responsive components.
– Used Redux and Hooks for state management and integrated testing pipelines for production stability.
– Worked closely with QA and data visualization teams to ensure clarity, performance, and accessibility.

MoxiWorks **Seattle, WA**
QA / Software Intern *2019*
– Debugged and wrote unit tests for front-end code; validated UI workflows and React components.
– Improved developer feedback cycles through test automation and bug triage tooling.

Orange Media Network / KBVR-FM **Corvallis, OR**
Software Engineer / Radio Producer *2016 – 2019*
– Created custom playlist tagging and logging software to support on-air programming and archiving.
– Sparked an ongoing interest in music technology and metadata enrichment.

Open Source & Music Projects

Tagger.site — Next.js + Node.js web app parsing Discogs + .CUE to generate timestamped tracklists with SEO optimization.

Listogs — React/Next.js app integrating **Discogs OAuth** and **Socket.io** to export releases to YouTube playlists.

RenderTune — Electron + FFmpeg app for rendering and metadata-tagging full-length music videos.

martinbarker.me — Personal site showcasing creative UI/UX projects, built with **Next.js**, React Hooks, and Vercel hosting.

Technical Skills

Languages: JavaScript (ES2020+), TypeScript, Python, SQL, HTML5, CSS3
Frontend: React, Next.js, Redux, Hooks, Responsive Design, CSS-in-JS, Animations
Testing: Jest, Cypress, Playwright — unit and integration testing
Backend: Node.js, Express, FastAPI, REST APIs, PostgreSQL
Tools: Git, Docker, GitHub Actions, Linux, CI/CD
Other: Passion for music, UI design, and creative digital experiences

Community

Speaker at Seattle.JS on packaging cross-platform Electron apps; active contributor in open-source music preservation communities.