

Martin Barker

Seattle, Washington | martinbarker.me | 425-419-3702 | martinbarker99@gmail.com | [LinkedIn](#) | [GitHub](#)

Software engineer with 5+ years of experience building full-stack applications, distributed systems, and cloud-native workflows. Creator of open-source music-tech projects like [RenderTune](#), [Vinyl2Digital](#), [tagger.site](#), and [Listogs](#). Experienced with Postgres, Elasticsearch, and HDFS, and in running Ray, Docker, and Kubernetes both locally and in the cloud. Developed petabyte-scale imaging pipelines at the Allen Institute and reliable CI/CD systems at Philips. Skilled Linux user passionate about open access, open source, and community-driven platforms.

SKILLS

- | | | |
|----------------|-----------------------------|----------------------------|
| • Python | • React.JS / Node.JS | • Docker / Kubernetes |
| • Linux / Bash | • Ray Distributed Computing | • SQL (MySQL / PostgreSQL) |
| • AWS/GCP/ADS | • GitHub Actions / CI/CD | • Elasticsearch |

PROFESSIONAL EXPERIENCE

Allen Institute

Seattle, WA

Software Developer III / Contractor

November 2024 - present

- Developed Rhapsody, a Python package for stitching petabyte-scale microscopy data using Ray, AWS, and Zarr.
- Designed correctness metrics for large-scale image stitching pipelines, leveraging computer vision and distributed validation exceeding 1petabyte.
- Presented project progress to cross-functional teams, mentoring junior developers and driving collaboration on distributed systems.

Philips Ultrasound

Bothell, WA

Senior DevOps / Software Developer

February 2022 - May 2024

- Led the migration of 117,000+ work items from IBM RTC to Azure DevOps, released [open-source](#).
- Implemented GitHub Actions for CI/CD pipelines, enhancing deployment automation and reliability.
- Designed HIPAA-compliant tools for logging and testing ultrasound systems, improving reliability and regulatory compliance.

Alaska Airlines

Seattle, WA

Software Developer Contractor

September 2021 - November 2021

- Developed and maintained web and mobile products, improving user experience and functionality.

Bungee Tech

Seattle, WA

Software Engineer

January 2020 - August 2021

- Implemented front-end retail analytics graphs and tables, enabling sorting millions of rows of data.
- Optimized Elasticsearch queries supporting large-scale retail analytics workloads.

Zume, Inc

Seattle, WA

DevOps Engineer (Software Engineer I)

September 2019 - January 2020

- Automated CI/CD build pipelines in Google Cloud Platform with Docker / Terraform / Kubernetes.

MoxiWorks

Seattle, WA

Quality Assurance Engineer Intern

June 2018 - August 2019

- Strengthened customer experiences by writing full coverage testing suites in Java Groovy.

EDUCATION

Oregon State University

September 2015 - July, 2019

Bachelor of Science Degree - Computer Science / Cybersecurity

ADDITIONAL SKILLS

- Familiarity with FFMPEG, experience overseeing product development from start to finish, and automating the digitization and tagging of physical media.