

# Alex Ball • Boston

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## SOFTWARE ENGINEER

*Full-stack applications, novel user experiences, complex problems, simple solutions*

Experience designing and building in all layers of the stack: phones, browsers, serverless environments, databases, and container-based deployments. Experience leading engineering in an Agile environment in collaboration with PM/UX/external stakeholders. Experience prototyping and iterating on solutions.

My core values: being mission-driven, attention to detail, mutual respect, trust, and honesty, and clear communication. Software is my craft, and I welcome opportunities that allow me to hone my skills while helping others. I am excited to work in teams that share these values.

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## TECHNOLOGIES

Android, React/React Native, Node, Firebase, Kubernetes, CI/CD, TDD/BDD, Typescript, Java, Python, C, Matlab

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## EMPLOYMENT HISTORY

**Cantina Consulting**, Boston, MA. *Senior Engineer* **January 2020 - April 2021**

Developed full-stack mobile and web applications for clients in property management, sports entertainment, and clinical eye-tracking domains.

**Verily Life Sciences**, Cambridge, MA. *Software Engineer* **October 2018 - June 2019**

Feature developer for Onduo, a Type-II diabetes management app. Responsible for requirements gathering, design, and full-stack implementation.

**Google**, Cambridge, MA. *Software Engineer* **June 2016 - October 2018**

Developed voice search and Google Assistant functionality for Wear OS, an Android-based smartwatch. Responsible for the integration between the Assistant and system UI.

**HST Solar**, Remote to Los Angeles, CA. *Software Engineer* **July 2015 - March 2016**

Modeled ROI of utility-scale solar power plants. Created innovative plant layout optimization techniques using mixed integer linear programming. Provided high-level feasibility analyses to founders and demonstrated software for clients.

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## PROJECTS (See Github)

**Code for Boston (Volunteer) (Next.js, React, Redux, Mapbox, Firebase)** **June 2019 - Present**

Lead design and development of several open-source civic tech projects, built mainly on Next.js, Firebase, and Kubernetes. Mentored volunteer contributors and promoted CI/CD, clean coding, and agile best-practices. Managed open-source code bases and review process.

**Video Feedback Simulation (Typescript, Three.js, WebGL)** **March 2016 - Present**

Generative art. Users can intuitively manipulate fractals, generate extremely high resolution renderings, and share links to patterns.

**Share Space (React, Node, Vagrant, Linux sysadmin)** **September 2019 - 2021**

Remote collaboration tool for sharing a virtual desktop between users. Users can view a low-latency video stream of the desktop and pass remote control between each other.

**Python Audio Lab** **June 2019**

Library for live, interactive audio graph processing in Jupyter notebooks. Includes a notebook to perform live measurements of electric guitar pickup frequency response.

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## EDUCATION

**California Institute of Technology**, Pasadena, CA **June 2015**

**BS, Major Physics, Minor Computer Science, Honors**

GPA: 3.8 / 4.0