

# Ari Shoham · Software Engineer

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## Technical Skills

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**Strong:** Javascript (ES6+) · Typescript · React (Native, Hooks, Router, Context) · Redux (Toolkit, Thunks) · Material-UI · Framer Motion · Recharts · Next.js · HTML5 · CSS3 (Modules) · SASS · SQL (PostgreSQL) · NoSQL (MongoDB, Mongoose) · TDD (Jest, React Testing Library, SuperTest, Playwright) · Node.js · Express · RESTful APIs · GraphQL · Apollo · Bcrypt · JWTs · OAuth · ESLint · Git (Hooks) · Github (Actions) · Webpack · Google Lighthouse · NPM  
**Experienced:** Docker · Kubernetes · TravisCI · Python · Pandas · Arduino · Matlab · VBA · CAD · AWS · GCP

## Experience

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### VANTAGE | OPEN-SOURCE OPTIMIZATION TOOL FOR DEVELOPING IN NEXTJS | SOFTWARE ENGINEER | 2022

- Harnessed the Google Lighthouse SDK to create an NPM package that collects key web vitals and performance metrics in the background, with every Git commit, for an uninterrupted workflow during development.
- Utilized React, Webpack, and Node scripts to create a performant, dynamic, and modular SPA, bundled in a singular HTML file that could be stored in user's node modules and accessed with a simple terminal command.
- Implemented Redux to control state management throughout a deeply interconnected application, mapping functionality to components as needed, employing Redux hooks to enable quick access to state functionality.
- Displayed key web metrics with Recharts, providing modular graphs with a focus on readability and accessibility.
- Applied Jest and React Testing Library to build unit and integration tests utilizing mock functions and shallow rendering to ensure codebase stability, maintainability, and clarity for smoother development.
- Utilized Next.js for its static site generation to build the home and docs website to enhance load times and improve search engine optimization by serving the client a fully rendered html page upon request.
- Leveraged Typescript's ability to self-document, enforce strong static typing, and defined custom data structures leading to a richer IDE experience, a reduction of runtime errors, and improved collaboration between the team.
- Implemented a CI / CD pipeline with GitHub actions to automate pieces of development, which caught errors early by running the test suite with every new PR and reduced development time by automatically publishing to NPM.
- Product developed under tech accelerator OS Labs.

### BMW MANUFACTURING, HAGEN & COMPANY, & BWH HOSPITAL | ENGINEER | 2016-2021

- Deployed scripts that automated the generation and distribution of internal reports to key stakeholders at BMW.
- Developed, designed, prototyped, and printed resin 3D models of anatomical, simulation-based task trainers.

## Open Source Contributions

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### GOODWATCH | MOVIE LIBRARY PLATFORM

- Built a GraphQL server with Apollo to interface with an external RESTful API and SQL database with minimal network requests and strongly typed schemas for faster full stack integration that is much less error prone.
- Unified a thematic design of elements with modern CSS / SASS and custom modified MaterialUI components.

### NUTRITION.IX | HEALTH APP FOR MONITORING NUTRITIONAL INTAKE BY MEAL

- Developed a non-relational database, allowing for flexible schema generation improving development speeds.
- Incorporated React Router v6 to ensure fast conditional client side routing while minimizing network requests.
- Incorporated OAuth 2.0 with persistent cookies to promote a secure and convenient authorization experience.

### DRIVER REPORT CARD | ONLINE DRIVER REVIEW PLATFORM

- Designed RESTful server architecture leveraging Node.js and Express's middleware design pattern that allowed for requests to multiple endpoints while ensuring the end user's data was secure with Bcrypt and JWT sessions.
- Constructed a relational database and performed CRUD actions using parameterized queries and leveraged PostgreSQL's ability to enable concurrent connections from multiple clients while maintaining ACID compliance.

## Education

### CLEMSON UNIVERSITY, SC – MECHANICAL ENGINEERING

Coursework: Matlab, Solidworks, Single & Multivariable Calculus

## Talks & Publications

SERVER SIDE RENDERING | Single Sprout Tech Talk

## Interests & Hobbies

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Skiing the Rockies | Pulling the perfect espresso shot | Backpacking with my Labrador | Making sourdough from scratch