Nicholas Sabadicci

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Software Engineer

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Technical Skills

Front End - JavaScript (ES5/ES6), React, TypeScript, HTML, CSS3, SASS, JQuery, Axios, Babel, Webpack
Back End - Node.js, Golang, Java, SQL, PostgreSQL, MongoDB, Mongoose, Docker, Redis, AWS EC2, Hadoop
Developer Tools - Jest, Mocha, Chai, JUnit, Git workflow, Linux, Trello, AGILE development, A11Y, Postman

Relevant Professional Experience

Block Clinical | Software Engineer | Java, Maven, jQuery, SASS, MongoDB, MySQL, Hadoop
Centralized Management of Site and Patient Payment Logistics for Clinical Trials. 2021-2022

- Designed and implemented large-scale internal tooling which populates both **MongoDB** and **MySQL** with detailed records of pseudo random dummy data based on a Study's configuration, allowing for an accurate customer tailored sales demo of the entire platform without revealing sensitive patient data.
- Created a secondary tool which generates a status report based on the results of a simulated trial and responds through an endpoint with an XLSX spreadsheet containing a detailed log of patient data in order to demo the complexity of patient visit documentation that is automated by the platform.
- Created simulations based on predefined gaussian, specified, or linear patient and site onboarding curves. Pseudorandom variation can be introduced by passing a "Fudge Factor" parameter from the client to accurately demonstrate how the system handles late and no-show patients within an actual trial.
- Built a validator to determine if a study possesses the necessary elements to simulate, sends verbose human readable errors to the client to highlight each and every missing field required to run each tool.
- Added full **JUnit Testing** coverage and **Javadoc** comments to achieve well documented, maintainable, and declarative functions throughout all contributions to the platform.

Software Engineering Applications

Omen API | Back End Engineer | JavaScript, Node.js, PostgreSQL, Express, AWS, Redis GitHub
E-commerce System Design. API that stores data and handles requests for millions of products. 2021

- Developed restful API using Node and Express with a PostgreSQL database. This API replaced a legacy version in order to improve latency and performance under load.
- Horizontally scaled architecture by deploying 10 **Express** servers on **AWS EC2 T2** instances, and a single **PostgreSQL** DB managed by an **NGINX** load balancer, resulting in a 40X increase in throughput.
- Wrote **PostgreSQL** queries utilizing subqueries to nest joins and aggregate statements to pull data from multiple tables and create optimized database operations.

Human Clothes | Front End Engineer | JavaScript, React, SASS, Jest, A11Y GitHub
Highly polished e-commerce product overview module and image carousel 2021

- Implemented an e-commerce product overview module using **React** and **SASS** complete with conditionally rendered image carousel and dynamic size and quantity dropdowns using **custom CSS**.
- Used **React Higher-Order Components** to develop modular components and flexible helper functions the entire team could use for application-wide click tracking to track user activity throughout the app.
- Achieved a 100% disability compliance score in **Lighthouse** by enforcing strict **A11Y** compliant **AirBnb** linter rules in order to create a client which is accessible for all users.

Album8 MVP | Full Stack Engineer | Golang, TypeScript, React, PostgreSQL, Docker GitHub
MVP for an image sharing service that allows you to upload and tag images of any file type. 2021

- Built a multithreaded **REST API** using the **GoLang Gorilla/Mux** Router package.
- Stored image tags within a **Postgres** array using **GIN indexing**, significantly reducing insertion times and providing faster lookup times when compared to a traditional join table.

Education

Hack Reactor - *Advanced Software Engineering Immersive* 2021
Miracosta College, San Diego - *Computer Science* 2017

Relevant Coursework: Java, Advanced Data Structures & Algorithms, Computer Architecture and Assembly Language, Calculus (1, 2, & 3), Linear Algebra, Intro to Python