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# MINH TRAN

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## TECHNICAL SKILLS

*Frontend:* React.js, Next.js, HTML, CSS, JavaScript/Typescript

*Backend:* Express.js, Node.js, MongoDB, PostgreSQL, MySQL

*Tools and Utilities:* Webpack, Babel, Docker, AWS EC2, NGINX, Mocha, Chai, New Relic, jQuery, Socket.io

## EDUCATION

Hack Reactor, *Advance Software Engineering Immersive Program* (2021)

California State University East Bay, *B.S. Computer Science* (2020)

- **Coursework:** Data Structures & Algorithms, Computer Network, Operating Systems, Analysis of Algorithms, Database Architecture, Mobile Programming, Web Development, Software Engineering

## SOFTWARE APPLICATIONS

**Tattoo Art** | Fullstack | React.js, Express.js, Node.js, MongoDB, Typescript

[Github](#) | [Demo](#)

*Tattoo Art is an application for users to create contests and compete as well as allowing users to show their work and artistic view.*

- Constructed client using **React** and **MUI** for its quick and responsive UI.
- Structured server with **RESTful API** architectural style and **MVC** framework.
- Integrated **Sockets** for real-time private messaging to other users.
- Designed **UI/UX** for various components/pages.

**Congo Prime** | Fullstack | React.js, Express.js, Node.js, MongoDB, AWS EC2

[Github](#) | [Demo](#)

*An e-commerce platform composed of various microservices to improve user's experience with product purchase and surfing.*

- Rendered using **React** with **styled-components** to isolate modules from other microservices.
- Utilized **MongoDB** for its schema-less database, deep queries abilities, and simple/quick setup for project's agile workflow
- Deployed server on **AWS EC2** to provide accessibility to all users, scalability, and reliability.
- Improved page load time by compressing the downloadable data served to users which reduces payload size and increased page load speed from 7 to 48.

**Reactors** | Back-end | PostgreSQL, AWS EC2, NGINX, New Relic

*An e-commerce app that holds over 10M records of data in the database, which is scaled to handle thousands of user's requests.*

- Populated database with COPY query and write stream to efficiently load a large amount of data.
- Created indexes to optimize queries, storing ids in a B-tree, and reduced query execution time from ~2000ms to < 50ms.
- Stressed test database, received a throughput of ~10k rpm with ~800ms per request on the local machine, and improved to ~40k rpm with ~1400ms per request on **EC2** instance.
- Horizontally scaled database using **NGINX** load-balancer, round-robin implementation on 4 microservices, received ~112k RPM with ~3.32ms per request.

**Fanime** | Front-end | Javascript, Next.js, React.js

[Github](#) | [Demo](#)

*Anime viewing platform that provides users a fast and simple method of anime searching/browsing.*

- Constructed a server-side rendering application for immediate availability to improve user's experience and to be detected by search engines.
- Implemented infinite scrolling over pagination to improve UX.
- Integrated CSS modules to locally scope components and for simple refactoring.