

Brian Ngo

Software Engineer

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TECHNICAL SKILLS

Proficient:

- Programming Languages: *Matlab, Python, Arduino, Javascript, Typescript, HTML, CSS*
- Databases: *PostgreSQL, SQL, Firebase, Supabase*
- Libraries: *Sequelize, Redux*
- FrontEnd: *Javascript, HTML, CSS, Tailwind*
- BackEnd: *Node.js,*
- Frameworks: *React, Express.js, Angular, Next.js*

Knowledgeable:

- Libraries: *Bootstrap, Leaflet, React Native, Axios, Websockets, WebPack, Vite, Tailwind, Metro builder, Expo Go, Chart.js, Postman*
- Other Tools: *Tableau,*

TECHNICAL PROJECTS

Software Developer | Chatterbox | <https://github.com/brianhngo/ChatterBox> | July 2024

Developed a full-stack Twitch clone application featuring live streaming, real-time chat, and viewer tracking using React, Node.js, and Socket.IO.

- Developed a Full-Stack Twitch Clone Application: Built a live streaming platform with Next.js/React frontend and Node.js/Express backend, featuring real-time chat, dynamic notifications, and viewer tracking.
- Engineered Real-Time Features and Scalable Chat Systems: Utilized WebSocket (Socket.IO) for live chat and viewer count updates, supporting multiple chat rooms with real-time message delivery and moderation.
- Integrated Live Push Notifications and QR-based 2FA Authentication: Implemented email alerts for live streams and Google Firebase Authentication with QR code-based two-factor authentication for enhanced security.
- Applied Best Practices in Code Quality and Responsive Design: Conducted code reviews, testing, and debugging while developing responsive UI components with React and Tailwind CSS for a seamless user experience.

Software Developer | FinanceMe | <https://github.com/brianhngo/FinanceMe> | March 2024

FinanceMe is a comprehensive financial management platform designed to assist users in tracking and optimizing their personal finances. With features like budgeting, expense tracking, bill reminders, categorical spending, savings and budget tracking.

- Developed a full-stack application using PERNSF stack (PostgreSQL, Express.js, React, Node.js, Sequelize, Firebase) with libraries Tailwind, Vite, and ChartJS.
- Implemented user authentication features including third-party sign-in, password recovery, and user creation using Firebase Authentication.
- Executed efficient database queries to extract users data, and implemented the data to create dynamic chart features that allow users to visualize and comprehend their financial data.
- Used ChartJS to develop and integrate real-time customizations features for Bar Graphs, Donut Chart, Line Graphs, and Pie Charts, which allow users to effortlessly modify data and trends that instantly reflect changes for enhanced user experience.
- Designed and integrated an Edit feature enabling users to modify their transactions and bill reminders.

Software Developer | WeatherHere | <https://github.com/brianhngo/WeatherHere> | Jan 2024

Created a mobile Weather App that enables users to monitor weather forecasts for their locations.

- Developed a full-stack application utilizing Weather API, React Native, Metro Builder, Expo
- Designed and executed the App's home page, featuring real-time tracking of the user's location and presenting a comprehensive 7-day forecast, along with detailed hour-by-hour breakdowns of wind, rain, precipitation, sunset, sunrise, and more.

Software Developer | TradeM | <https://github.com/brianhngo/TradeM2> | Oct 2023

TradeM serves as a Yelp-like platform where users can list used items they wish to sell. This app enhances the concept of Craigslist or Facebook Marketplace by providing an alternative avenue for reselling items they no longer require or desire.

- Developed a full-stack application using Firebase, React, Node.js, and Bootstrap.
- Designed and implemented a chat messaging system to facilitate communication between buyers and sellers.
- Created a User Profile component allowing users to input and store their information in the database.
- Implemented user authentication features including third-party sign-in, password recovery, and user creation using Firebase Authentication.
- Designed and integrated an Edit feature enabling users to modify their user information and manage products for sale.
- Established a Leaflet map to display products within the viewer's proximity range.

Software Developer | ChipCorner | <https://github.com/brianhngo/ChipCorner> | Aug 2023

Developed ChipCorner, an E-Commerce application, utilizing a robust tech stack and implementing features such as product listings, shopping cart functionality, and secure payment processing.

- Developed a dynamic web application using the PERNS stack (PostgreSQL, Express.js, React, Redux, Node.js, Sequelize), featuring a well-structured database and seamless user experience.
- Crafted an engaging Landing Page, serving as the user's initial interaction with the platform.
- Engineered an efficient Cart System that utilized local storage to store and dynamically update cart information as users added or removed items.
- Designed the user-friendly Single Chip product component, ensuring a visually appealing presentation.
- Implemented robust user authentication, employing error handling mechanisms with JSON Web Tokens (JWT).

EXPERIENCE

Associate Research & Development Engineer | Biocept | San Diego, CA

Feb 2022 – Jan 2023

- Collaborated as a lead member of the team that spearheaded the successful development of a cutting-edge microfluidic device, contributing to its journey from concept to market launch for liquid biopsy.
- Designed and executed a cell-based assay tailored for commercial use, focusing on tumor cell enrichment and FISH analysis, elevating the company's product offerings and research capabilities.
- Played an integral role in optimizing manufacturing processes and enhancing quality control procedures, resulting in streamlined production and improved overall product quality.
- Achieved a significant 30% reduction in both processing time and costs for clinical commercial operations through process optimization and efficiency enhancements.

Research Associate I, Technology Development | Biocept | San Diego, CA

Mar 2021 – Feb 2022

- Partnered closely with external third-party companies to revamp and standardize company software contracts, resulting in optimized tumor cell detection capabilities and improved business partnerships.
- Facilitated seamless collaboration with department leaders, contributing to the successful execution of concurrent projects within the R&D domain.
- Orchestrated the creation of validation documentation tailored for Clinical Laboratory Improvement Amendments (CLIA) laboratory use, ensuring compliance with stringent quality and regulatory standards.
- Spearheaded maintenance, calibration, and inspection efforts across all laboratory machinery, ensuring optimal functionality and adherence to quality assurance protocols.
- Cultured cell lines for use in R&D activities, meticulously adhering to facility protocols and fostering the availability of critical resources for ongoing research initiatives.

EDUCATION

Fullstack Academy Web Development Bootcamp

Apr 2023 – Aug 2023

Software Engineering & Web Development Certificate

Full-time, Full Stack Javascript Web Development Immersive

University of California, San Diego (UCSD)

Sep 2017 – Jun 2020

Bachelor of Science in Bioengineering: Biotechnology

CERTIFICATES

- **Udemy - The Complete SQL Bootcamp : Go from Zero to Hero** September 2023
- **PCEP – Certified Entry Level Python Programmer** Jun 2020 – Aug 2020
- **Lean Six Sigma White Belt Certification** Aug 2020 – Oct 2020