Brian Ngo

Software Engineer

(949)-232-7901 | Brianhngo@gmail.com | Laguna Hills, CA | linkedin.com/in/brianhngo/ | github.com/brianhngo/ |

TECHNICAL SKILLS

Proficient:
- Programming Languages: *Matlab, Python, Arduino, Javascript, HTML, CSS*
- Databases: *Postgresl, SQL, Firebase*
- Libraries: *Sequelize, Redux*
- FrontEnd: *Javascript, HTML, CSS*
- BackEnd: *Node.js, Express.js*
- Frameworks: *React, Express.js*

Knowledgeable:
- Libraries: *Bootstrap, Leaflet, React Native, Axios, WebPack , Vite, Tailwind, Metro builder, Expo Go*
- Other Tools: *Tableau*

TECHNICAL PROJECTS

Software Developer | **TradeM** | https://github.com/TradeMarket/TradeM2.git | Aug 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 (Postgres, 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 and informative presentation.
- Implemented robust user authentication, employing error handling mechanisms with JSON Web Tokens (JWT).

Software Developer | **WeatherHere** | https://github.com/brianhngo/WeatherHere | Aug 2023
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.

Project Lead | **Left Atrial Appendage Occlusion (LAAO) Simulation for Watchman Medical Device** |
Sep 2019 – Jun 2020
- Developed and demonstrated workflow for LAAO procedure that would reduce rate of surgical complication for patients with atrial fibrillation
- Designed a successful pre-surgical computational model of the LAAO procedure using catheters, 3D models, pipes
- 3D-printed patient specific model of Left Atrial Appendage for benchtop simulation via 2D CT imaging, plastic

filaments, and silicon molding.
- Mechanically tested different 3D printed hearts via tensile toughness, and hardness.
- Created Machine Learning Algorithm for predicting the sizing of Watchman Device for patients based upon CT imaging.

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.

Manufacturing Intern | Biofluidica | San Diego, CA   Mar 2019 – Aug 2019

- Played a pivotal role in improving product quality by introducing a sterilization step into the manufacturing process, resulting in a notable 20% reduction in quality control rejection rates.
- Efficiently prepared and produced essential wash buffers and reagents for experimental procedures, contributing to the seamless execution of research activities.
- Demonstrated meticulous attention to detail by packaging, inventorying, and labeling crucial components such as microfluidic chips, blood sample kits, and plates.
- Met production goals by consistently manufacturing the required daily quota of microfluidic chips essential for Clinical Laboratory Improvement Amendments (CLIA) testing, ensuring the smooth flow of critical testing processes.

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

HONORS & AWARDS

Provost Honors | UCSD   Mar 2018 – Jun 2018
- Awarded to students who enrolled in at least 12 graded units per quarter and achieved at least a 3.5 GPA

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