ERNESTO VALENCIA

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EXPERIENCE

Amazon – Software QA Engineer Intern
May 2022 - Present | CA
- Incoming Summer 2022

BeatBread – Software Engineer Intern
Feb 2022 - Apr 2022| UT
- Redesigned and developed from scratch landing pages for clients previously written in Wordpress using React
- Integrated main website (beatbread.com) with "Plaid" functionality to automate the linking of bank accounts
- Rewrote scripts written in Python to Node.js to automatically send email to first-time customers

BYU Laboratory for Interactive Machines – Research Assistant
Apr 2021 - Apr 2022 | UT
- Developed a research tool to study human behavior and the impact of artificial agents using Angular and JavaScript
- Introduced a chat system that allows group creation, public and private messaging, along with anonymous messaging
- Improved communication data by 200x which led to more sophisticated research data results

BYU Computer Science – Teaching Assistant
Jan 2021 - Apr 2022 | UT
- Taught software engineering principles to 150+ students in the CS 202 & 203 software lab series
- Subjects (not limited to): Git, Java, Debugging, UI design, JUnit testing, JMeter, SonarLint, Selenium, Mockito, Style
- Reviewed, generated feedback, held lab sessions, helped debug, and graded all of the student submissions

Applaudo Studios – Software Engineer Trainee Program
May 2019 - Sep 2019| SLV
- Developed native iOS app to manage multiple VEX V5 robots as well as keeping track of equipment
- Improved backend transactions functionality for the Walmart El Salvador Android App

EDUCATION

Brigham Young University – Junior
- B.S. Computer Science, SWE – 3.92/4.0 GPA
- Full Tuition Scholarship - Honors Program Student
- BYU Dev Club & BYU Competitive Programming

SOFTWARE SKILLS

- **Proficient in**: Java, C++, C, JavaScript, TypeScript, Node.js, HTML5, CSS
- **Worked in**: SQL, React, Vue, Node, AWS, Git, Dart, Flutter, Python, React Native, Angular
- **Interests**: AI Research, Software Dev,

PROJECTS

Blood Matching Project
May 2021 - Sep 2021 | UT
- Created website using Angular and JavaScript to allow public to register as donors or receptors of COVID plasma
- Developed algorithm to match donors and receptors taking into account blood type and location proximity
- Received an offer from the Salvadoran Ministry of Health, but ultimately gifted it to Blood Banks administrations

Other Projects
- Developed a website using Vue, JavaScript and Tailwind to allow public to share their favorite recipes with the world
- Programmed an Android app that uses shape recognition to identify number of bacteria in a lab-grown colony
- Created Android app to locate, search, and manage for Family events in a Google Map. Java based server with SQL
- Developed a Spelling Corrector using Java that takes into account the number of times a possible word has been used
- Programmed a prime number tester using Python that tests Fermat's theorem and Miller-Rabin test (higher accuracy)
- Used divide and conquer approach to create a Convex Hull Solver with a total complexity of $O(n\log(n))$ using Python
- Designed and developed an Evil Hangman game that dodges the player's guesses by pairing down the word lists

LEADERSHIP/OTHER

Faith El Salvador – Founder
May 2020 - Dec 2020 | SLV
- Achieved 60+ partnerships food for 3k+ families affected by COVID19 economic shutdown in extreme poverty

Other
- 1st Place in Business Case Competition by Silicon Valley Bank - made a working app prototype with live demonstration
- Played the electric guitar and sang in a band for 2 years