

ERNESTO VALENCIA

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EXPERIENCE

Microsoft – Software Engineer Intern

May 2023 - July 2023 | WA

- Engineered end-to-end user behavioral analysis tool for user studies to record the interactions within a browser
- Developed C++ tracking code that records mouse clicks/movements coordinates, URLs, milestones and studyID
- Engineered desktop app using the Electron framework to visualize the data in heatmaps, tables, and charts, using D3.js
- Created internal page that activates the C++ tracking logic for said special user studies locked behind a feature flag

Sling TV – Associate Software Engineer

Aug 2022 - Apr 2023 | UT

- Engineered a testing pipeline to automatically test merge requests, reducing manual testing time for releases and PRs
- Developed tool for automatic app deployments to Browsers, SamsungTV, LG TV, Xbox, Comcast, Chromecast and Vizio
- Led and trained a team of three software engineers to develop said testing pipeline increasing code coverage to 63%
- Discovered and solved multiple bugs raised as part of regression and new feature releases for 2+ million users

Amazon Lab126 – Software Engineer Intern

May 2022 - Aug 2022 | CA

- Developed website that provides FireTVs information, and smart search engine based on features, filters and countries
- Engineered program to monitor software releases on FireTVs and their acceptances status as well as alerting failures
- Made critical changes to core framework to fix bugs in Prime parental-control locking features affecting Italy & France
- Wrote new automated tests using Pytest for FireTV in Build Acceptance and Regression End-to-End test suites

BeatBread – Software Engineer Intern

Feb 2022 - Apr 2022 | UT

- Redesigned and developed from scratch white-label landing pages using ReactJS previously written in WordPress
- Integrated main website (beatbread.com) with “Plaid” and “ModernTreasury” to automate linking of bank accounts
- Rewrote scripts written in Python to Node.js to automatically send emails to first-time customers using SendGrid API

BYU Computer Science – Research Assistant & Teaching Assistant

Jan 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 and discoveries
- 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

EDUCATION

Brigham Young University – Apr. 2024

- B.S. Computer Science, SWE – 3.78/4.0 GPA
- Full Tuition Scholarship - Honors Program Student
- BYU Dev Club; Competitive Programming; UX/UI

SOFTWARE SKILLS

- **Proficient:** Java, C++, JavaScript, TypeScript, ReactJS, VueJS, Node, React Native, MongoDB, Python, Electron
- **Worked:** SQL, Tailwind, Supabase, AWS, Git, Dart, Flutter, CSS, Swift, Angular, C, C#, Jenkins, Docker, Pytest, Jest
- **Interest:** AI Research, Software Dev, Web Dev, App Dev

PROJECTS

Blood Matching Project – Founder/Developer

May 2021 - Sep 2021 | UT

- Created a website using AngularJS to allow the public to register as donors or receptors of COVID-19 plasma
- Developed algorithm to match donors and receptors taking into account blood type and location proximity

Other Projects

- Founder & developer of recipes website (mamakassrecipes.web.app) with current plans to turn into a social media
- Engineered iOS app in React Native and connected it with OpenAI API to give real-time answers in user conversations
- Programmed an Android app that uses shape recognition to identify the number of bacteria in a lab-grown colony
- Engineered Android app to locate, search and manage 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
- Used divide and conquer approach to create a Convex Hull Solver with a total complexity of $O(n \log(n))$ using Python

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 - redesigned and developed a new app within a week