

# Bryant Jimenez

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## EDUCATION

### Stanford University

Stanford, CA

*Bachelor of Science in Computer Science*

*Mar 2024*

#### Relevant Coursework:

Programming Methodologies and Abstractions, Computer and Network Security, Artificial Intelligence, Design and Analysis of Algorithms, Computer Organization and Systems, Principles of Computer Systems, Compilers, Web Applications, Databases and Data Systems, Building for Digital Health (Stanford School of Medicine)

## EXPERIENCE

### Software Engineer Research Intern

Jan 2024 – Present

*Stanford Byers Center for Biodesign*

*Stanford, CA*

- Developed push notifications for LLM agent iOS application to promote physical behavior change, **utilizing OpenAI API** and Firebase Cloud Messaging, allowing users to set fixed and context-dependent notifications related to their health data.
- Engineered **listener-based, server-side scheduling module** in Python using APScheduler package for notification schedules based on changes to user database.
- Implemented unit testing for Python backend server by employing Pytest, resulting in a significant **reduction in post-deployment errors by 65%**.
- Architected bulk data handling for open-source SpeziHealthKit module using **Apple HealthKit API**, implementing batch data retrieval and task parallelization for efficient processing, **eliminating lost user health data during upload by 100%**.

### Software Engineer Intern

Nov 2023 – Jan 2024

*Openproof Project, Center for Study of Language and Information @ Stanford University*

*Stanford, CA*

- Development of both client and server-side functionality, utilizing JavaScript to transition desktop courseware applications to web applications.

## PROJECTS

### Photo Sharing Web App | *JavaScript, HTML, CSS, ReactJS*

Feb 2023 – Apr 2023

- Developed a PhotoSharing website where users can log in, register, upload photos, @mention other users, and view other user's details and photos.
- Orchestrated user authentication, registration, and login functionalities, resulting in a tight-knit user base of **11 Daily Active Users** over a 1.5-month span.
- Integrated MongoDB backend for data retrieval, achieving average **API response time of ~250ms**
- Cultivated social interactions including liking, commenting, and mentioning on database of **200+ user-uploaded images, 400+ likes, 45 @mentions on 97 comments**.

### Compiler for COOL Language | *C/C++/FLEX/Bison/MIPS*

Apr 2022 – June 2022

- Implemented lexical analyzer + parser, writing rules that match on user-defined regular expressions and perform a specified action for each matched pattern.
- Engineered a semantic analyzer for COOL that manages naming and scoping, type checking for **23+ types, 20+ symbols, classes, methods, and objects**, and full error message generation for erroneous programs.
- Wrote code generator that produces MIPS assembly for any COOL program.

## TECHNICAL SKILLS

**Languages/Frameworks/Dev Tools:** Python, C/C++, JavaScript, HTML/CSS, ReactJS, React Native, Swift, Linux, Unix, SQL, Golang, MATLAB, TypeScript, TailwindCSS, Node.js, Next.js, Google Cloud Platform, Jira

## ACTIVITIES

### ColorStack

Feb 2020 – Present

*Member*

- Engaged member of ColorStack, a community focused on championing Black/Latinx diversity and inclusivity in technology.
- Contribute to discussions, attend workshops and events aimed promoting diversity in the tech industry.