Iván Lorenzana Belli

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Biomedical engineer with a strong background in software development and a deep passion for medical technology and healthcare innovation. I possess hands-on experience in mobile application development, verification and validation testing, and integrating advanced technologies like machine learning. My goal is to contribute to high-impact projects and collaborate with industry professionals to make a positive difference in the healthcare and technology sectors..

WORK EXPERIENCE

Exact Sciences **Baja California, México**

Java Developer – Software Engineer *March 2025 - Present*

- Contribute to full-stack development of an internal platform using Spring Boot, Thymeleaf and HTMX to supoort dynamic laboratory workflows
- Implement reusable UI fragments with JavaScript, ensuring support for multiple formats.
- Assist with optimizing static resource delivery and configuring internationalization via a custom LocaleResolver.
- Participate in code reviews and maintain technical documentation (confluence, PR comments)

Dexcom **Baja California, México**

Verification and Validation Testing Trainee *March 2024–March 2025*

- Conducted manual and automated testing to ensure the quality and reliability of software products.
- Developed automated test scripts using Appium Java, enhancing testing efficiency and coverage for key features.
- Identified and tracked bugs, contributing to continuous improvement of application quality throughout various project cycles.
- Participated in formal testing phases and release preparations, ensuring product readiness and compliance before official releases.

Dexcom **Baja California, México**

iOS Developer Trainee *March 2023–March 2024*

- Developed user interfaces for both Apple Watch and iPhone applications using SwiftUI and UIKit Storyboards, applying MVVM architecture for SwiftUI components and MVC for Storyboards.
- Implemented enhancements to the "Direct to Watch" product, focusing on improving user experience and functionality across devices.
- Created views for watchOS and iOS applications, ensuring seamless integration and consistency in user interfaces.
- Collaborated with cross-functional teams to design, implement, and test new features, performing at a level comparable to a full-time engineer.

PROJECTS

Savely (2024)

- Developed a comprehensive financial management mobile application aimed at helping users set and track personalized savings goals, monitor expenses, and receive AI-driven financial tips to improve budgeting.

- Implemented receipt scanning functionality using Apple Vision and CoreImage to automatically capture and categorize expenses.
- Created an intuitive dashboard using SwiftUI, featuring visualizations such as bar charts and pie charts to display financial progress.
- Integrated push notifications to remind users to track daily expenses, enhancing user engagement and adherence to financial goals.
- Used OpenAI API to give tailor-made advices to the user based on their savings and expenses behavior.

VitaPath (2024)

Independently developed an integrated system to assist individuals with pre-existing medical conditions (heart disease, respiratory issues, diabetes) during medical emergencies.

- Created iOS applications for patients and paramedics using Swift, enabling patients to store their medical history and send emergency alerts that share real-time location with nearby paramedics.
- Implemented a web portal for administrators using React, and developed the server with Node.js and Firebase for secure data storage and real-time database functionality.
- Facilitated real-time communication between patients and paramedics, allowing paramedics to access critical patient information (blood type, surgical history, pre-existing conditions) to improve emergency response times.

Cardiac Arrhythmia Detector Using Machine Learning (*2023)*

- Created a neural network-based interface in Python to detect abnormal heartbeats from ECG files.
- Developed a user-friendly interface for uploading and analyzing ECG files to identify arrhythmias.
- Implemented and trained machine learning algorithms to enhance the accuracy of arrhythmia detection.

CERTIFICATIONS AND COURSES

- **iOS Mobile Developer Bootcamp (ITJ)** *July 2022*
- **iOS Developer Career Path (Codecademy)** *2023*
- **Version Control (Meta) 2024**
- **Introduction to Docker (Google) 2024**
- **Introduction to iOS Mobile Application Development (Meta) 2024**

EDUCATION

Instituto Tecnológico de Tijuana **Baja California, México**

Bachelor of Biomedical Engineering

Specialty: Applied Biomedical Technologies

LANGUAGES

- **English:** C1 Spoken, C1 Listening, B2 Written
- **Spanish:** Native

TECHNICAL SKILLS

- **Programming Languages:** Swift, Java, Python, Javascript
- **Testing & Automation:** Appium (Java), XCTest (iOS Native Testing)
- **Back End:** Node.js, RESTful API Development, Firebase, Spring Boot
- **Databases:** Firabase, Postgres, Supabase
- **Developer Tools:** Git, Agile Methodology, npm, docker