

# Emmanuel Flores

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## Education

### University of California, San Diego

La Jolla, CA

B.S. COMPUTER SCIENCE, GPA 4.0

Sep 2020 - Jun 2024 (Expected)

- Regents Scholarship Recipient, Provost Honors (Sep 2020 - Present)
- **Course Work:** Data Structures, Design and Analysis of Algorithms, Discrete Mathematics, Theory of Computation, Intro to Computer Architecture, Digital Logic Design, Programming Languages, Software Tools, Software Engineering

## Skills

<b>Programming Languages</b>	Python, Java, C# TypeScript, JavaScript, HTML, CSS, MS SQL Server, Bash, Powershell, R, C, C++
<b>Frameworks and Libraries</b>	Angular, React, Next.js, Node.js, React Native, .NET Core, Express.js, Django, Selenium
<b>Software Tools</b>	Git, Firebase, Azure DevOps, Octopus Deploy, Jest, JUnit

## Experience

### Becton, Dickinson and Company (BD)

San Diego, CA

SOFTWARE ENGINEERING INTERN

Jun 2022 - Sep 2022

- Collaborated with an intern team to engineer a cloud-based data aggregation tool to facilitate the curation of drug concepts
- Implemented input field auto-complete and data validation features to **decrease data entry time by 25%+ and reduce data corruption**
- Developed a total of **20+ API endpoints** interfacing with **10+ SQL stored procedures** and **10+ LINQ queries** to efficiently retrieve data from a **million+ record database**
- Optimized multiple stored procedures via parallelization, nested procedure removal, and elimination of redundant subqueries – **reducing their query time by as much as 50%**
- Automated insertion of database table metadata from spreadsheets, upload of local stored procedures to live database server, and merging of release version code into local repositories – collectively accelerating workflow

### Triton Software Engineering

La Jolla, CA

FULL STACK DEVELOPER, PRODUCT MANAGER

Nov 2020 - Present

- Collaborated with students to build software projects pro-bono for non-profit organizations using Agile methodology
- Architected features for multiple web and mobile applications built with modern technologies such as **MongoDB, React, Express.js, Node.js**. These included:
  - A mobile application for Words Alive that allows users to read, explore, and learn about their favorite children's books 📄
  - A web application for Feeding San Diego that allows staff to view and update data about agency partners, and facilitate distribution of food to the under-served 📄
- Formulated technical requirements, scoped features, and oversaw product implementation in a cross-functional team for the development of a mobile application to help local Bhutanese farmers transport goods 📄

### First Tech Challenge Team 3791

Daly City, CA

LEAD PROGRAMMER

Aug 2018 - Jan 2020

- Developed driver programs to allow peripherals to control robot movements
- Implemented autonomous programs that integrated with inertial measurement unit and motor encoders
- Created instructional material and provided mentorship to prospective programmers

## Projects

### ZooKeeper

ANDROID, JAVA, ROBOLECTRIC, ESPRESSO

- An Android application developed as part of a software engineering course that formulates and guides users through an optimized route plan for them to visit their desired zoo exhibits

### Recurring Investment Tool 📄

PYTHON, GOOGLE SHEETS API, PLAID API, ROBINHOOD API (THIRD-PARTY)

- A script to automatically send recurring market orders for stocks and cryptocurrencies based upon the contents of a given portfolio

### UniPals 📄

NEXT.JS, DJANGO

- A web application to facilitate social interaction between university students during the pandemic using personality and interest based matching