# Joe Bernal

Bell, CA | (323) 317-4032

joe.bernal2841@gmail.com | linkedin.com/in/joe-bernal/ | github.com/joebernal

**Education** 

California State University, Fullerton Bachelor's Degree in Computer Science

May 2026

Citrus College | Glendora, CA Associate's Degree in Computer Science June 2024

## **Related Courses**

File Structures and Database Systems Statistics Applied to Natural Sciences Web Front-End Engineering Web Back-End Engineering

Software Engineering Object Oriented Programming

## **Skills**

Data Analysis & Tools: Python, R, SQL, Excel, Google Cloud, GitHub Programming Languages: Java, C++, JavaScript, (ES5/6), HTML, CSS, Sass

Concepts: Data Structures, Algorithms

Collaboration & Version Control: Git, GitHub, Jupyter Notebooks

# **Projects**

Course Recommendation System

April 2023 - Present

Technologies: Python, MySQL, Selenium, HTML

- Developed a terminal-based course recommendation system to generate personalized education plans
  - Automated data extraction by web scraping course information using Selenium, ensuring up-to-date academic records.
  - Designed and optimized a relational database using MySQL, storing and managing data for 300+ courses
  - Implemented query optimizations to filter course selections, demonstrating data processing and database management skills.

## Global Travel Database

September 2024 - December 2024

Technologies: MySOL, SOL, Relational Database Design, Data Analysis

- Conducted data analytics for travel insights, helping users find destinations based on language, safety, and cost of living
- Developed SQL queries for large-scale data processing, including joins, subqueries, and aggregate functions
- Built an Entity-Relationship (ER) diagram to model relationships between countries, cities, crime data, and pricing

### Campus Navigation System

October 2024 - November 2024

Technologies: Python, JavaScript, Leaflet.js, Graph Data Structures

- Built a web-based campus navigation tool with an interactive map powered by Leaflet.js
- Implemented BFS, DFS, Dijkstra's Algorithm to compute optimal routes between campus locations
- Integrated error handling for invalid inputs and route selection

## **Work Experience**

City of Hope: Eugene and Ruth Roberts Summer Student Academy | Duarte, CA *Lead Intern* 

June 2023 - August 2023

- Conducted data-driven research on stomach cancer awareness, identifying key knowledge gaps from survey data.
- Cleaned and analyzed clinical study data, ensuring accuracy for research conclusions.
- Presented research findings to over 100 medical professionals and researchers, showcasing data insights and recommendations for patient education.

#### **Hobbies/Interests**

Bible Study Leader: Led Bible Study Group for 20+ attendees in both English and Spanish. Salsa Instructor: Taught 10+ students the fundamentals of Cuban and LA-style salsa. Study Abroad Student: Studied Spanish Language for Native Speakers in Barcelona, Spain.

May 2024 - Present April 2024 - Present February 2024 - May 2024