# JUSTIN BALBUENA

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## **EDUCATION**

University of Puerto Rico - Mayagüez

Aug 2021 - May 2026

Bachelor of Science, Software Engineering

GPA: 3.44

Enrolled Courses: Intro to SWE, Algorithm Design & Analysis

Completed Courses: Data Structures (Java), Fundamentals of Computing (Discrete Mathematics),

Advanced Programming (C++), Introduction to Computer Programming I (Python)

## **EXPERIENCE**

Google, Inc.

Irvine, CA

STEP Intern

May 2023, Aug 2023

- Developed a debugging tool with the ability of processing hundred billion events in a pipeline which resulted in saving thousands of hours of engineering time. This was done as part of the Google Ads Attribution team and used C++ and an internal MapReduce library.
- Developed a tool which could generate billions of events in the form of Protocol Buffers for testing purposes. This was done using C++, MapReduce library, and an internal file system.
- Went through the process of ramping up, learning new technologies and frameworks which would be used for the main project.

Google, Inc.
Sunnyvale, CA
STEP Intern
May 2022, Aug 2022

- Created an internal API which allows users to Grant/Revoke ACLs for Annotation Templates for Core Data's Datahub team.
- Completed entire development process, including writing design docs, implementation, going through design reviews, and launching the API for internal use.
- Developed these APIs using C++, Protocol Buffers, and Remote Procedure Calls (RPC).

### **PROJECTS**

#### **Huffman Coding Tree**

April 2023

Implemented Huffman Encoding Algorithm to encode strings in order to save space. Project done as part of the Data Structures class with the use of Java.

## ACADEMIC ACTIVITIES

## Computing Alliance of Hispanic-Serving Institutes (CAHSI)

Mayagüez, PR

Webmaster

Aug 2022 - Aug 2023

• Design and develop any Website CAHSI needs for their different efforts such as: Hackathons, Lab, and Research. The tools used were: Figma (Design), WordPress (Development)

## Advanced Programming Lab

Mayagüez, PR

Mentor

Aug 2022 - Present

- Answer any questions students would have during lab by explaining Object Oriented Programming concepts, C++ syntax, Visual Studio Code errors, Git, GitHub, and others.
- Tested the lab beforehand in search for any bugs that the problems might have.

## **SKILLS**

Software Development: Python, C++, Java, JavaScript, HTML 5, CSS, Linux, Git

Languages: Spanish (Native: Advanced), English (Fluid: Proficient)