

JUSTIN BALBUENA

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EDUCATION

University of Puerto Rico - Mayagüez

Aug 2021 - May 2026

Bachelor of Science, Software Engineering

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, React, HTML 5, CSS, Linux, Git

Languages: Spanish (Native), English (Fluent)