

Gabriel A. Santiago Plaza

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ABSTRACT

Aspiring Computer Scientist who wants his development on different branches in this field. Worked for more three years as a software engineer and is interested in research, serving the community, and the inspiring field of Digital Humanities.

TECHNICAL SKILLS

Languages: Python, C++, SQL, JavaScript, PHP, HTML/CSS, Cordova, React Native, NativeScript, Flutter

Frameworks: JQuery, Flask, Laravel

Developer Tools: Git, VS Code, Visual Studio

GPA: 3.75

EDUCATION

University of Puerto Rico, Río Piedras Campus

San Juan, PR

Undergraduate in Computer Science

Aug. 2018 – May 2023

- Took courses such as Software Engineering, Operating Systems, Computer Architecture, Algorithms, Database Management, Data Structures, Discrete Maths, Abstract Algebra, Calculus I, Calculus II, Compilers, High Level Languages, Computing Theory, Computer Graphics and two courses on Undergraduate Research.

EXPERIENCE

Undergraduate Software Developing Trainee

September 2019 – Present

University of Puerto Rico, Río Piedras Campus

San Juan, PR

- Learned to work with SQL, Python-Flask, PHP, Javascript, CSS, PHP-Laravel, HTML, Bootstrap, JQuery, Cordova, React Native, NativeScript and Flutter.
- During this period, we've been enforcing skills as adaptation to new environments, working with a team and polishing my skills as a Full-Stack Developer
- Worked in multiple projects that impacted communities like schools, municipalities, and the University itself.

President of Students' Association AECC

2022-2023

University of Puerto Rico, Río Piedras Campus

San Juan, PR

- The biggest achievement in my entire academic career
- With the help of great leaders, we created a sense of student community through academic activities, networking events, different workshops within Biostatistics, Software Engineering, Databases, Cyber Security, Competitive Programming and fraternization activities.
- During those semesters, more than 60 students joined, some competed in New York, some won prizes in competitions we sponsored, we hosted a Hackathon, and we inspired new students to keep the Association flowing with new ideas

NSF Funded Summer Internship

Summer 2022

Salisbury University

MD, USA

- Mentored by Dr. Randall Cone, we worked with Modern Tonal Harmony Theory to develop a Graph traversing AI.
- Was the motivation for the Master's degree that I am currently coursing.

Undergraduate Researcher

January 2021 and August 2022

University of Puerto Rico, Río Piedras Campus

San Juan, PR

- Worked with Dr. Edusmildo Orozco on Natural Language Processing Models with movie reviews to study Sentimental Analysis, with hopes of using it in Google Reviews in Local Puertorrican "Chinchorros".
- Worked with Dr. Carlos Corrada to learn different Software Development Kits and compare the performance of each.

Harmonical Graph Traversing AI | *Python, HTML/CSS*, Summer 2022

- * Developed an AI that uses Modern Tonal Harmony Theory to analyze chord sequences in Bach's Fugues and Preludes.
- * We created a parsing algorithm that given a score in SATB format, produces a data structure we can work with.
- * Developed an AI that; based on which notes are being played during each beat of the song and using a custom graph based on the Circle of Fifths, it detects which chord is being played in each measure.
- * At the end, we wrote a script that takes the result per measure and produces digital art using SVG. Here is the work.

Analysis on Mobile Development Kits | *Cordova, Flutter, React Native, NativeScript* Fall Semester 2022

- * Researched with Dr. Carlos Corrada comparing each Mobile Development Kits.
- * Developed the same Android application using features like geolocation, SMS, Camera and Torch
- * The end goal was to evaluate each Development Kit with a rubric who had criteria such as performance, speed, language difficulty, active community, time consuming; to conclude on which Kit we recommend for programmers.

Personal Video Game | *Javascript/THREEJS* May 2022

- * For the Computer Graphic's final project, I decided to create a third-person shooter.
- * Worked with Mesh, Sprites, UV grids, GLTF, Raycasting and animation
- * The idea is similar to an arcade shooter, where the goal was to survive
- * You can go to my website and play it <https://gaby7274.github.io/gaby7274.io/awesome/index.html>

OLAS | *PHP Laravel, MySql, Javascript, Bootstrap, HTML/CSS* September 2020, January 2023

- * Updating a WebApp for the University that uses Laravel 4.2, to help evaluate the overall skills of students in the campus, in which it gathers information that is crucial for the accreditation of our University.
- * We're adding core features to the existing app, making it more flexible so it can work for every program in the University. We also normalized databases, added over forty tables, automatized student results and let Coordinators create Annual Plans designed for students to better their performance.
- * Here is the branch we are currently working
https://git.ccom.uprrp.edu/CDCC/OLAS/src/branch/Merge_gabriel_mayo