

Abby Gotay Almonte

Software Engineering Student

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GitHub @abby-1b

I've been programming professionally for around six years, and am getting my bachelor's degree in Software Engineering.



abby-1b.github.io

Technical Skills

JavaScript 6 yrs HTML + CSS 6 yrs C 4 yrs C++ 4 yrs Python 5 yrs
Rust 3 yrs Java 2 yrs PHP 1 yrs C# 1 yr Swift 1 yr Lua 1 yr

Education

University of Puerto Rico – Mayagüez (August 2023 - May 2028 Expected)

Bachelor's in Software Engineering (2nd year)

Relevant coursework: *Intro to Programming (Google in Residence)*, *Fundamentals of Computing*, *Advanced Programming*, *Data Structures*, *Algorithm Analysis & Design (ongoing)*

University Gardens High School – San Juan (2019 - 2023)

Work Experience

Dr. Bair Soils Lab (November 2023 - Present)

Currently developing calculators and other tools for people who work with soils.

[<https://abby-1b.github.io/site/soils-test>]

Projects

Spells

Built a server for quick web prototyping with TypeScript and Pug, reducing iteration time by compiling resources on demand. [<https://abby-1b.github.io/site/spells>]

Rust TypeScript Compiler

Developed a TypeScript compiler in Rust, optimized for speed and memory efficiency. Exposes an Abstract Syntax Tree (AST) for integration with external tools. [<https://github.com/abby-1b/rstsc>]

Peek Game Engine

Designed a lightweight, modular game engine inspired by Godot, featuring a node-based system and a strong emphasis on code-driven development. [<https://github.com/abby-1b/peek-game-engine>]

Ray Tracer

Built a physically accurate ray tracer in four days, simulating physically accurate light interactions to generate photorealistic images. [<https://github.com/abby-1b/ray-tracer-2024>]

Python Tester

Automated Python script validation for students and faculty, reducing manual testing by generating expected outputs without exposing baseline code. [<https://github.com/abby-1b/PythonTester>]

Bulbs (Game)

Created a narrative-driven game about fitting in, developed in one week for a Game Jam using an early version of the Peek Game Engine. [<https://abby1b.itch.io/bulbs>]