

Marcello Delgado

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Summary

A new-grad software engineer with hands-on experience deploying full-stack features and extensive practice in Rust, C++, and C#. I am results- and data-driven, and I have a proven track record of driving innovation and value in both my previous and current careers. Given my extensive experience and professional development in education, I also bring excellent interpersonal and communication skills, years of experience mentoring students and co-workers, and proven systems for iteration and documentation.

Education

- **MS Computer Science** - DePaul University (June 2024)
- **MA Education** - The University of Chicago
- **BS Mathematics/ BA Biological Sciences** - The University of Chicago

Work Experience

Software Development Intern / Amazon.com, Inc. (AFT Pack Team)

Jun 2022 - Aug 2022, Seattle, WA

- Applied AWS services, including CloudFormation and DynamoDB, to architect and implement scalable solutions to extend a REST API, in Java and Ruby, and successfully integrated autoscaling mechanisms, enhancing the application's robustness and responsiveness. Due to excellent mentorship, I developed a comprehensive understanding of version control using Git, and we developed an excellent rapport and workflow to deliver a quality project. I verified the integrity of the service with rigorous unit, integration, and end-to-end testing.

Precalculus Teacher / Lindblom Math and Science Academy (Chicago Public Schools)

Aug 2021 - present, Chicago, IL

- In addition to my instructional responsibilities, I implemented an Auto-Grader script using Google Cloud Services (detailed below) to efficiently give students real-time, up-to-date feedback.

AP Statistics/Calculus Teacher & Department Chair / Intrinsic Schools (Chicago Public Schools)

Aug 2016 - July 2021, Chicago, IL

- In addition to my instructional responsibilities, I conducted daily/weekly assessments to determine appropriate learning interventions. I improved 390 students' math scores from PSAT-10 to SAT-11 by 49 points on average every school year, surpassing the math department average of 30 points of growth. I further coached co-teachers and junior teachers in curriculum design, assessment strategies, and differentiation for diverse learners.

Personal Projects

- **Auto-Grader.** Designed and implemented a software solution that automatically grades student spreadsheet projects in JavaScript using the Google App Script API. When run, the script iterates through students' assignments, grades the assignment, creates a text file detailing which individual tasks the student has left to do, and records the grade for both student and teacher.
- **Audio Engine.** A multithreaded system designed to play audio through the Windows Xaudio2 API, giving users the ability to easily start and stop playback, switch audio between different channels, and change pitch and volume without blocking.
- **Graphics Engine.** A graphics engine based in OpenGL, couples with a custom memory system for managing heap allocations directly, a math library optimized for matrix algebra using SIMD intrinsics (MMX & SSE), and object pooling.

Quantitative & technical skills

- Rust, C++, C#, Go, Clojure, JavaScript, MySQL, Java, Python
- Proficient with Git and Perforce version control software
- AWS cloud architecture, in particular: DynamoDB & CloudFormation
- Native fluency in English & Spanish.