

# ANDREW ROJAS

✉ andrew.m.rojas@gmail.com ☎ (626) 991-1531 🐙 github.com/amrojas

## Education

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**Johns Hopkins University – Clark Scholar (3.79 Major GPA)**      **Expected Grad: BS: May 2020, MS: May 2021**

- B.S. Computer Science, B.S. Math, minors in Entrepreneurship & Management, Applied Math & Statistics
- M.S. Computer Science
- **CS Courses:** Operating Systems, Compilers & Interpreters, CS Innovation & Entrepreneurship, Algorithms
- **Math Courses:** Number Theory, Abstract Algebra, Probability & Statistics, Linear Algebra, Calculus
- **Upcoming Courses:** Distributed Systems, Machine Learning, Optimization, Combinatorics & Graph Theory

## Skills

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- **Languages:** C, C++, Python, PHP, Java, SQL, JavaScript
- **Technologies:** Docker, Flask, git, Selenium, Vue.JS, Laravel, REST, Unix/Linux, CUDA

## Experience & Leadership

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**NVIDIA – Software Engineering Intern (Enterprise)**      **May 2019 – Current**

- Building Flask service to sync NVIDIA GPU Cloud access with active support contracts in Salesforce
- Improving log analysis tool for DGX, and Drive Constellation systems to assist customer case diagnosis
- Creating BERT model demo to demonstrate using NVIDIA GPU Cloud pre-trained models

**Johns Hopkins – Course Assistant (Algorithms)**      **January 2019 – Current**

- Host office hours to assist students in understanding material and completing assignments
- Grade problem sets and exams, leaving feedback to help students

**PatientPop – Software Engineering Intern**      **May 2017 – May 2019**

- Created data seeding API in PHP for Java Selenium automated tests to speed up release testing by 70%
- Upgraded front-office integration to import “blocked” time slots, increasing booking tool accuracy
- Enhanced serverless marketing tool by optimizing asynchronous calls to backend

**Association for Computing Machinery – President**      **January 2017 – Current**

- Work with CS department to plan community-building and career-growth events for students
- Manage cabinet of 7 members by automating action item reminders and leading board meetings

## Projects

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- **CHIP-8 Emulator:** Building emulator for 8-bit interpreted language, including 16 registers, a stack, 2 internal timers, hex keyboard input, graphics, sound, and 35 opcodes. <https://github.com/amrojas/chip8-emulator>
- **XChange:** Developed application to predict restaurant sales based on past sales, weather, date, and nearby events using machine-learning in a Python flask application with a Vue.JS frontend. Competed in the JHU Business Plan Competition and won 3<sup>rd</sup> place. <https://github.com/amrojas/Xchange>
- **PintOS:** Improved basic operating system kernel to add BSD scheduler, user processes, system calls, virtual memory, and fully-featured filesystem as part of a group project.
- **Viterbi Keyboard:** Constructed ortho-linear ergonomic keyboard, first soldering all switches and diodes, then programming Arduino controllers with open-source QMK firmware written in C
- **SIMPLE Compiler & Interpreter:** Python emulator for SIMPLE, targeting ARMv6, implementing lexical analyzer, parser to build symbol table and abstract syntax tree, and optimized assembly code generation.

**Interests:** PC gaming, mechanical keyboards, tennis, new music, new technologies, cooking and baking, shoes (scripts for price alerts)