

Morgan Reschenberg

I'm currently a junior studying Computer Science and STEM Education at UC Berkeley as a Regents' and Chancellor's scholar. I am passionate about CS Education outreach and making the CS community more inclusive and accessible to all.

EXPERIENCE

UC Berkeley, Computer Architecture and Machine Structures — *Lab Assistant*

J 2017 - PRESENT

Provided guidance to over 60 students on labs covering C, MIPS, caches, virtual memory, CPU design, and more. Weekly, provided mini reviews of course content and assistance on a variety of projects (CPU construction, MOESI cache coherence, MIPS assembler/linker/loader, etc.)

UC Berkeley, Regents' and Chancellor's Scholars Association — *Web Development Committee Chair*

AUGUST 2015 - PRESENT

Coordinated a team of 13 undergraduate students to oversee the development and maintenance of RCSA.berkeley.edu. Managed student data through SQLite, Django, and Haystack, guided front-end development through HTML, CSS, JavaScript, and Bootstrap.

UC Berkeley, Berkeley ANova — *Curriculum Director, Instructor*

AUGUST 2015 - DECEMBER 2016

Oversaw UC Berkeley students as they volunteered teaching 10-week courses in HTML/CSS, Python, Java, or Scratch to underserved Bay Area high school and middle school students. Led a committee of 15 instructors in developing curriculum for these subjects using the 5E lesson plan format and Common Core Standards. Instructed at DCA in Oakland and De Anza High in El Sobrante

EDUCATION

UC Berkeley, Berkeley CA — *Computer Science, STEM Education*

August 2015 - May 2019

PROJECTS

Gitlet — *Mini git-like version control system*

Constructed in Java from scratch importing only Java's Collections objects. Has local add, commit, remove, reset functionality and includes branching, merging, and merge-conflict detection.

CPU — *Two stage pipelined MIPS 32-bit CPU*

Constructed schematically in Logisim. Has core instruction set functionality including branching, jumping, arithmetic operations, and more. Modularised into Instruction Fetch, Decode, RegFile, ALU, Read Mem, and Write Mem stages. Pipelined between fetch and decode.

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PROGRAMMING LANGUAGES

Java, C++, C, MIPS, Python, Django, HTML, CSS, Bootstrap

AWARDS

Regents' and Chancellor's Scholar Awarded 2015 to the top 0.2% of freshman applicants to UC Berkeley

Dean's List Honors Awarded 2016, 2017 to students with a GPA in the top 4% of L&S Undergraduates

CAA Leadership Award Awarded 2015 by the Cal Alumni Association to students demonstrating innovative, initiative-driven leadership impacting their academic, work, or community environments

LANGUAGES

American Sign Language, Spanish

NOTABLE COURSES

Discrete Mathematics and Probability Theory

Data Structures and Programming Methodology

Computer Architecture and Machine Structures

Designing Information Devices and Systems

Knowing and Learning in Mathematics and Science

