Connor Duncan

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Looking to apply my passion for mathematics to problem-solving at scale, and seeking full-time employment that adds value to a global organization by leveraging my experience in technology, collaboration and systematization.

Education

2017-2021	**University of California, Berkeley** *B.A. in Physics; B.A. in Applied Mathematics* ‖ 3.317 Overall GPA.

Employment

Research

Summer 2020	**National Renewable Energy Laboratory** *SULI Intern* • Developed JavaScript application visualizing the projected social and economic impact of environmental policy changes in the Los Angeles Area.
2018-2020	**University of California, Berkeley; Stanford Linear Accelerator Center** *Research Assistant, Pyle Group* • Developed full-stack web application for testing dark matter search detector for short circuits. • Developed full-stack web app for real-time remote detector readout and debugging using National Instruments NIDAQmx python library. • Assisted in installation of ^{3}He/^{4}He refrigerator. • Assisted in small-scale Linux server administration and maintenance.

Other

2018-2020	**University of California, Berkeley: Disabled Students Program** *Note-Taker* • Took lecture notes for several classes and posted them to the D.S.P site, using LaTeX to notate. • Developed a system for automatically compiling new standalone documents for each lecture using git.
Summer 2019	**Cal National Debate Institute** *Lab Leader* • Co-taught roughly 30 high school students in an intensive, seven week program introducing the advanced intracacies of policy debate.
2019-Present	**Various** *Tutor* • Shared my passion for science and math with upcoming students as a private tutor in both physics and mathematics.
2017-2019	**Sonoma Academy** *Assistant Debate Coach* • Traveled with high school students on average three times each semester, provided coaching before debates, and assistance with topic research.
Summer 2018	**Cal National Debate Institute** *Resident Assistant* • Supervised roughly 50 high school students, and worked nights as a judge of both debates and research.
Summer 2017	**Colorado Governor's Office** *Executive Intern* • Helped organize the 2017 *Pedal The Plains* event by systematizing the organization of sponsors and trivia facts along the bike route. • Prototyped a news clip server in Java which scraped RSS feeds for office-related news and sent out a daily email.

Languages

Computer

2017 | **LaTeX**
- Daily use for notetaking, homework and presentations.
- Created several advanced diagrams in TikZ, including a randomly generated voronoi decomposition.
- This document was written in LaTeX.

2017 | **Python**
- Automated search for short circuits in Phonon Detector output with over 700 nodes, with a React frontend and storage of results.
- Implemented Webserver Gateway Interface Servers (deployed with Apache and nginx), including websocket-based streaming and JSON web token-based authentication and encryption.
- Some experience with GIS according to arbitrary distance functions.
- Writing an in-progress RESTful interface for the NIDAQmx api, allowing easy remote control over National Instruments Digital Analog Converters.

2018 | **JavaScript**
- Developed numerous single-page web applications using React, including visualizations using D3 and vx.
- Comfortable using node, webpack and babel to bundle applications.

2018 | **Shell**
- Daily use to navigate and manage my PC, and for simple task automation.
- Most familiar with zsh and bash.

· · · | **Other**
- LabView (required for the Advanced Experimental Laboratory sequence of the Physics Major).
- C (for custom builds of my most used programs).
- Lua (programming a kiethley multimeter).
- MATLAB/GNU Octave (required for a numerical analysis course in the math major).
- HTML and CSS.
- SQL (used for storage of Phonon detector search results).

Human

2010 | **Spanish**
- Conversational in Spanish. Studied four years in high school and participated in two homestay programs in Costa Rica and Cuba.

/etc

2017-2019 | **University of California, Berkeley**
Policy Debate Team Member
- Debated at the varsity level for two years. Four year debater in high school.
- Typically travelled between 5 and 7 times each semester.
- Overall division 1 champion for the 2018-2019 season.

· · · | **Tools I Love**
- Linux (Arch for personal use, RHEL for lab use, Debian for both, and Alpine on a cell phone. Almost always with systemd, once with openrc).
- vim (for as much as a I can without sacrificing productivity).
- git (for both school and hobby projects).
- jq (a JSON parser meant for use in shell scripts).
- ssh (personal and lab use).
- tmux (useful for remote multitasking).
- redis (as a message queue for various streaming applications).

· · · | **Other Interests**
- Pianist for nearly 20 years (both jazz and classical).
- Advanced Open Water SCUBA Diver.
- Skier
- Enthusiastic consumer of science fiction.