

## Nicholas Arvin

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### EDUCATION

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#### University of California, Berkeley

B.S. Electrical Engineering and Computer Science | GPA: 3.1

Expected, May 2024

- **Relevant Coursework:** Structure and Interpretation of Computer Programs, Data Structures, Designing Information Devices/Systems I/II, Machine Structures, Discrete Mathematics and Probability Theory, Probability and Random Processes, Optimization Models in Engineering, Multivariable Calculus, Signals and Systems

#### Palisades Charter High School

Diploma | GPA: 4.43 weighted

Pacific Palisades, CA

June, 2020

- Honor Roll 2016-2020, Boys' Varsity Tennis Team 2016-2020 National Champions 2017

### SKILLS

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Java, Python, C, SQL, GitHub, NumPy, Vim, Logisim, RISC-V, Scheme, Word, PowerPoint, Excel, Jupyter Notebooks

### PROJECTS

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#### LOGISM CPU

November, 2021

- Designed a two-stage pipelined CPU in Logisim to run instructions in all six RISC-V core instruction formats.
- Implemented an ALU, Immediate Generator, Branch Comparator, and ROM-based control logic.
- Utilized logic gates, priority encoders, plexors, shifters, and tunnels to manipulate data bits in desired fashion.

#### PHILPHIX

September, 2021

- Built a find and replace tool in C that scans a document for different variations of desired words to alter.
- Implemented Hash Table struct with a pointer to buckets to record the desired "find" and "replace" words.
- Manipulated strings and used the C file input/output library to process input files and output updated result.

#### BYOW

December, 2020

- Designed and implemented an engine for generating pseudo-random worlds in Java. Utilized Hash Sets and Hash Maps to keep track of used positions and generate rooms and hallways without overlapping.
- Used the Studio Draw Class to incorporate UI elements such as a main menu and HUD with real date and time.
- Added light sources that increase brightness of nearby tiles. Can be switched on and off by the player.

### EXPERIENCE

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#### Clocky LLC

Los Angeles, CA

Software Engineering Intern

January 2022 - Present

- Developed a tool in Python/Django to identify counterfeit products on E-commerce platforms like Amazon/eBay.
- Full-stack development in HTML, JavaScript and CSS. Implemented web scraping to extract data from websites.
- Created additional pages for search engines and altered SQL queries. Tool is hosted on the Heroku platform.

#### Kumon

Pacific Palisades, CA

Grader/Tutor

June – July 2018

- Assisted students (primarily elementary and middle school) with Math and Reading in an understandable way.

#### Tennis Team

Pacific Palisades, CA

Academic Team Captain

January- March 2020

- Coordinated with Athletic Director to establish a new position in order to help players stay strong academically despite over 15 hours of high intensity tennis a week. Helped teammates with course planning and college prep.

### LEADERSHIP & ACTIVITIES

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#### Boy Scouts Troop 223

Pacific Palisades, CA

Eagle Scout

November, 2017

- Led a 100 man-hour service project involving sandpapering and painting the surrounding rusted fence at Saint Anne Church and Shrine. Coordinated with the Deacon to discuss potential renovations and make a plan of action.
- Designed and built a teak bench. Calculated specific measurements on paper and blueprinted the design. Utilized a circular saw and drills to construct the bench under proper supervision. Sealed with waterproof wood protector.
- Budgeted expenses including materials/tools and food for more than 15 Scouts over the course of multiple days.
- Ran weekly scouting meetings consisting of running games and teaching merit badges including Chess and Rowing.