

Jacob Hanson-Regalado

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EDUCATION

Diablo Valley College

Pleasant Hill, CA

- ♦ Major - Computer Science
- ♦ Relevant Coursework -
 - Data Structures & Algorithms
 - Advanced Programming with C and C++
 - Assembly Language Programming
 - Programming with Java

Sophomore

GPA 4.0/4.0

PROJECTS

Sorting Visualizer

Benicia, CA

Educational App

January 2020

- ♦ Educational tool showing the individual steps of sorting algorithms in a visually pleasing way.
- ♦ Users can select various algorithms, pause, fast-forward, restart, and adjust the size/speed of the animation.
- ♦ Sorting algorithms included: Heap Sort, Merge Sort, Quick Sort, Radix Sort, Selection Sort, and Bubble Sort.
- ♦ Built with JavaScript using jQuery.

NeuroCars

Benicia, CA

Self-driving Car Simulation

December 2019

- ♦ 2D self-driving car simulation demonstrating neuroevolution in the browser.
- ♦ Agents in the simulation use neural networks to navigate tracks, and iteratively evolve using the genetic algorithm.
- ♦ Built with JavaScript using Planck.js for collision detection and ray casting.

dvhackers.com

Pleasant Hill, CA

Club Website

November 2019

- ♦ Official website for the Computer Science Club at Diablo Valley College.
- ♦ Led a team of 3 club members to build an elegant website that conveys important information about the club.
- ♦ Built with JavaScript using React.

trackIt

Benicia, CA

Small-Business Tool

May 2019

- ♦ Free small-business tool used to keep track of profits.
- ♦ Users create sale/purchase items and enter in transactions regarding those items.
- ♦ Emphasizes REST API development, MVC design, database design, and mobile-friendly front-end design.
- ♦ Built with Python Flask, handlebars.js, SQLAlchemy, and jQuery.

EXPERIENCE

Diablo Valley College

Pleasant Hill, CA

Computer Science Tutor

September 2019 - present

- ♦ Tutor DVC students in Computer Science topics ranging from object-oriented programming to algorithms & data structures.
- ♦ Tutor mainly in C, C++, Java, and MASM.
- ♦ Practice creative problem solving, effective communication skills, and programming best practices.

International Summer School of Science Heidelberg

Heidelberg, Germany

Research Assistant

July 2018 - August 2018

- ♦ Selected as one of twenty-four students internationally to attend intensive four-week program in Germany.
- ♦ Worked in the Physics Institute of the University of Heidelberg with Ph.D. students.
- ♦ Coded in Python using NumPy, Pandas, and a Raspberry Pi 3.

SKILLS

Python ♦ Java ♦ C++ ♦ C ♦ HTML ♦ CSS ♦ JavaScript ♦ SQL
React ♦ jQuery ♦ Python Flask ♦ Nginx ♦ NumPy ♦ Git ♦ MySQL