

# Jacob Hanson-Regalado

✉ jhanreg11@gmail.com    🏠 jacob-hanson.com    ☎ 707-934-7532    🌐 github.com/jhanreg11

## EDUCATION

### Diablo Valley College

Pleasant Hill, CA

- ♦ Major - Computer Science
- ♦ Relevant Coursework -
  - Programming with Java
  - Advanced Programming with C and C++
  - Assembly Language Programming For x86 Processors
  - Data Structures & Algorithms

*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 only Planck.js for collision detection and raycasting.

### 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