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   *Sophomore*
- Relevant Coursework -   GPA 4.0/4.0
  - Data Structures & Algorithms
  - Advanced Programming with C and C++
  - Assembly Language Programming
  - Programming with Java

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 ◆ Java ◆ SQL
React ◆ jQuery ◆ Python Flask ◆ Nginx ◆ NumPy ◆ Git ◆ MySQL