

Vincent A. Titterton

Computer Science Undergraduate at the University of California, Santa Cruz

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[My Portfolio](#)

[LinkedIn](#)

[GitHub](#)

Education

University of California, Santa Cruz - 3.98 GPA

Sept 2018 - present

- Junior, Computer Science B.S.

University of California, Davis - 3.8 GPA

June - July 2017

- Summer Session classes while in high school: Statistics 13 and PHE 044.

Experience/Projects

Algorithms Engineering Internship - Bitbroker Labs

Feb - April 2020

- Edtech course review and design in C++

[Formula Slug](#) - C++

- School club that builds an electric race car and competes in the Formula SAE Electric.
- Programming microcontrollers for the electronic components of the car.

[Connect 4 AI](#) - Java

- Player vs computer Connect Four.
- Uses Depth First Search / Backtracking + a non-recursive position rating method.

[Path Finder](#) - Javascript / HTML Canvas - [Try it out](#)

- Finds the shortest path between two vertices on a graph while avoiding barriers.
- Can select between Breadth First Search and Dijkstra's Algorithm (for diagonal moves).

[Sorter](#) - Javascript / HTML Canvas - [Try it out](#)

- Visual array of adjustable size which can be shuffled and sorted.
- Ten different sorting algorithms are available to choose from.

[Minesweeper](#) - Javascript / HTML Canvas - [Try it out](#)

- Classic Minesweeper with a board of adjustable shape and size.
- Recursive square discovery algorithm is used when an empty square is uncovered.

CruzHacks 2020 - MLH hackathon hosted at UCSC

Skills

Languages: Java, C, Python, C++, Assembly, JavaScript, HTML, CSS

Tools: Git, Unix, Vim, GNU Make

Relevant Course/Subject History

Coding: Object Oriented Programming, Assembly Language, Advanced Programming, Java, C, C++

Theory: Data Structures, Search/Sorting Algorithms, Graph Algorithms, Abstract Data Types, Algorithm Runtime Analysis

Math: Discrete Math, Linear Algebra, Statistics, Graph Theory, Multivariable Calculus

Awards and Honors

UC Santa Cruz Dean's Honors (x4) 2018 - 20

CMPS 12A Top 15 Final Projects Dec 2018

Piedmont High School Honor Society 2016 - 18

Work and Volunteer History

Key Club International: Volunteer organization (community service) 2016 - 18

Full Belly Farm: Volunteer annually at the Hoes Down Festival Oct 2014 - present

Math Tutoring: Tutored students in algebra, trigonometry, calculus 2017 - 18

Election Day Poll Worker: Set up, operated, and broke down a polling station 2018

Hugh Groman Catering: Serve food and bus dishes in high class events June 2019 - present