## Vincent A. Titterton

## Computer Science Undergraduate at the University of California, Santa Cruz

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Education

University of California, Santa Cruz - 3.98 GPA

Sept 2018 - present

• Junior, Computer Science major

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 Al - Java

- Player vs computer Connect Four.
- Computer uses Depth First Search (depth = 8) + a non-recursive position rating method.

## <u>Path Finder</u> - Javascript / HTML Canvas - <u>Try it out</u>

- 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).

## <u>Sorter</u> - Javascript / HTML Canvas - <u>Try it out</u>

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

#### Battleship - Java / Swing

- Single player battleship game with randomly spawned ship locations.
- Goal is to sink all the ships in as few moves as possible.

#### 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 \_\_\_\_\_

<b>Key Club International:</b> Volunteer organization (community service) 20	016 - 18
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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