Vincent Titterton

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Education

University of California, Santa Cruz - GPA: 4.00 Sep 2022 - Dec 2023

Master's of Science in Computer Science

University of California, Santa Cruz - GPA: 3.98 Sep 2018 - Jun 2022

Bachelor's of Science in Computer Science - Dean's Honors x8

Work Experience

Computer Systems Design TA - University of California, Santa Cruz Jan 2022 - present

- Work in a team of 11 TAs/tutors to run a joint Computer Systems Design course for 300+ students.
- Design programming assignments (C), test scripts (C, GitLab), and written test questions.
- Hold weekly office hours and lab sessions to explain concepts and provide help on assignments.

Computer Graphics Tutor/Grader - University of California, Santa Cruz Sep 2022 - Dec 2022

- Worked in a team of 5 TAs/tutors to run a Computer Graphics course for 120+ students.
- Worked with professor to design programming assignments (JavaScript, WebGL).
- Held weekly office hours and lab sessions to explain concepts and provide help on assignments.
- Created an open source Python script to grade attendance stored in .CSV files. (sorts students by last name, calculates scores, generates comments, and interfaces with Canvas) Resulted in a 10x decrease in grading time and will save UCSC approximately $200 per offering of the course.

Algorithm Analysis Tutor/Grader - University of California, Santa Cruz Mar 2022 - Jun 2022

- Worked in a team of 11 TAs/tutors to run an Algorithm Analysis course for 110+ students.
- Graded homework assignments and quizzes with Canvas and Google Sheets.
- Worked with professor to design homework assignments and quizzes with LaTeX.
- Held tutoring sessions and did 1-on-1 assessments for student evaluations.

Programming Languages Grader - University of California, Santa Cruz Mar 2021 - Jun 2021

- Worked in a team of 10 TAs/graders to grade programming assignments for 100+ students. Work was done in a remote Unix server via SSH and Bash.
- Read and debugged students' code (Scheme, OCaml, Smalltalk, Perl, Make) with VIM
- Developed 4 unique grading scripts in Perl, saving 10 minutes of grading time per student's assignment. This saves UCSC approximately $12 per student (in grader compensation).

Software Engineer Intern - Bitbroker Labs Feb 2020 - Apr 2020

- Worked in a team of 10+ interns/leads to design and test a C++ OpenGL course.
- Managed and used virtual Windows desktops with Google Cloud and Microsoft Remote Desktop
- Wrote code and tested course modules in C++ with Microsoft Visual Studio

Personal Projects vince8nt.github.io

Connect 4 AI - Java

AI uses depth-first search and backtracking to look up to 8 moves in the future. If the position at depth=8 is not winning, it uses a non-recursive position rating system. Then, assuming optimal play from both sides, the AI can determine the optimal move.

Sorter & Path Finder - JavaScript vince8nt.github.io/sorter vince8nt.github.io/Path-Finder

Online visualization tools for sorting and path-finding algorithms. Sorter uses an array of adjustable size and distribution. It includes 23 sorting algorithms and 7 shuffling algorithms. Path Finder uses a 2D grid with the ability to add/remove barriers. Breadth First Search and Dijkstra's Algorithm can be used.

Skills

Languages:	Java, Python, C/C++, JavaScript, SQL, Scheme, Ocaml, Smalltalk, Perl, Flex/Yacc/Bison, OpenGL/WebGL, Verilog, Halide, GraphIt
Tools:	Git, Unix, Vim, GNU Make, HTML, CSS, Google Cloud, Slack, Microsoft Remote Desktop, Microsoft Visual Studio, Ren'Py, Eclipse, VirtualBox, Xilinx Vivado
Theory:	Distributed Systems, Compiler Design/Optimizations, Programming Languages, Data Structures, Complexity Analysis, Computer Graphics, Client/Server, Multi-threading, Computer Networking, Natural Language Processing