

Joel Ryu

jryu2@ucsc.edu | 408-355-3684 | San Jose | linkedin.com/in/joel-ryu | joelryu.com

Education

University of California, Santa Cruz

Computer Science, B.S. | Expected June 2022

Major GPA: 3.3

Coursework

Data Structures | Algorithms | Discrete Math and Probability Theory | Data Science | Linear Algebra and Differential Equations

Projects

Personal Website - joelryu.com (HTML, Javascript, CSS) Jul 2020 - current

- Developed a personal website by following online instructions and tutorials
- Integrated simple games found on github into a "for fun" section
- Implemented other small features such as date, time, and information about myself

Chatting application (HTML, Javascript, PHP, CSS) Jul 2020

- Developed an app that allowed users to enter and chat with each other
- Placed the application onto an online server for anyone to enter and use
- Used a localhost server to open PHP files

Sudoku Solver (Python) August 2020

- Developed an application to solve a sudoku board using a backtracking algorithm
- Also created an interactive GUI that allows the player to manually solve the sudoku board or have the algorithm solve it for them.

Battleship Player (Java) December 2018

- Developed an algorithm to efficiently play the game Battleship to destroy the enemy fleet in under a certain number of turns
- Implemented a GUI to show the game state after each turn

NQueens (Java, C) February 2019

- Developed an algorithm that placed n number of queens onto a chessboard and determined whether they would be able to attack each other
- Implemented in Java a simple version of NQueens, given a board size n, print number of solutions and all the boards that would fit n queens
- Implemented in C a more difficult NQueens. Given a board size and pre-placed queens, found a solution if there is one.

Skills

Languages:

Python, Java, C, HTML, CSS, JavaScript, PHP

Development Software

Git, IntelliJ

Extracurriculars

Vice President - UCSC Grappling Club 2019-2020

- After wrestling background from high school, joined a small grappling/jiu jitsu club in UC Santa Cruz
- Became VP in sophomore year and started teaching members
- Led the club through its meetings and facilitated matches between members