

# Megan Fung

## OBJECTIVE

I am seeking an entry-level position to leverage my skills as a computer science major with hopes to further my experience applying my technical abilities to solve real world problems.

## EDUCATION – B.S Computer Science class of 26’- CAL POLY SLO

**GPA:** 3.755– Dean’s List (3/3 quarters), President’s List (1/3 quarters)

**Relevant Courses:** *Fundamentals of Computer Science: CSC 101* (Grade: A+), *Data Structures: CSC 202* (Grade: A), *Introduction to Computer Organization: CSC/ CPE 225* (Grade: A), *Project-Based Object-Oriented Programming and Design: CSC 203* (Grade: A)

**Planned Courses for Upcoming Fall Quarter (2023):** *Discrete Structures: CSC 248* and *Systems Programming: CSC/ CPE 357*

## SKILLS

**Programming Languages:** Java, Python, C, Assembly (RISC-V), SQL

**Dev Environments:** IntelliJ, PyCharm, RARS, Sublime text editor, basic terminal compiling, Code.org

## PROJECTS/ HIGHLIGHTS

### CSC 203 Forest Simulation, Solo Project:

- *Objective:* To improve the codebase of an already working Java simulation
- Planned an approach for creating a more flexible and cohesive codebase without breaking the original functionality of the simulation
  - Created super classes/ abstract interfaces and extensions of them to cater towards the levels of complexity found in the different features and functionalities of the simulation
  - Identified which functions and variables should remain static and which should become instance methods and variables
- My classes and interfaces outlined the generic fields and actions of unique to specific features and functionalities of the simulation
  - Made adding to new characters, obstacles, rules to the simulation much simpler
  - Programmed A\* pathing for new characters
- Experience using exception handling, PApplet, streams, predicates, consumers, developing A\*pathing, and creating sprites via Piskel

### Hangman App, Solo Project:

- *Objective:* Build a fully functional Hangman video game ([game highlights/ overview](#))
- Designed and implemented the front end interface for Hangman game flow via Code.org
- Designed the database table schemas for storing/ managing user accounts, levels unlocked, coins earned, and puzzle words
- Wrote the logic in JavaScript to enable user I/O using game keyboard, provide an intuitive gameplay experience, and handle exceptions/ invalid inputs

### Instagram Unfollowers Filter, Solo Project:

- *Problem Statement:* no convenient way to identify who isn’t following you back on Instagram
- *Solution Implemented:* wrote a Python program to refine a list of users who are not following you back on Instagram by automatically comparing datasets (following and followers)
- *Overall Impact:* No need to spend hours finding users who don’t follow you back; improved Instagram user experience

## EXPERIENCE

### ISA (Instructional Student Assistant) for CSC 203 (Project-Based Object-Oriented Programming and Design– taught in Java) at Cal Poly:

- *Responsibilities include:*
  - providing support/ tutoring during lab sessions and through an online platform called Piazza. Examples include: guiding students through their projects, helping students make improvements to their codebase, and clarifying confusion with course curriculum-- an introduction to interfaces, inheritance, generics, exceptions, streams, and testing (using JUnit)
  - grading coursework for the class

### FEFA (Fair Education For All) Tutoring Program, Creator/ Founder:

- *Problem Statement:* Free educational support is not accessible to students who need additional academic help in school
- *Solution Implemented:* built and designed an online tutoring platform via WIX ([website highlights/ overview](#))
  - *General Functions:* book tutoring sessions by subject and grade level (automatically email confirmations, calendar invites and zoom links for the online tutoring booking), application submissions for high school students interested in applying to become a tutor, and a live chat service
  - *Leadership Role:* managed a team of 20+ people (consisting of tutors and program chairs), collaborated with Braly Elementary School to provide program services, and collaborated with Wilcox High School to approve official community service hours for program tutors
- *Overall Impact:* provided free one on one tutoring for students K-5 made readily and easily attainable to students who need it. Provided the opportunity for high school students to get the community service hours they need to graduate by providing their tutoring services.