# Yuanjie Xu

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#### **EDUCATION:**

University of at Buffalo - The State University of New York

Bachelor of Science in Computer Science

GPA: 3.3/4.0

#### **RELEVANT COURSEWORK:**

Data Structures

• Systems Programming

Discrete Structures

Linear Algebra

Engineering Computations

**Expected Graduation: May 2024** 

• Calculus I and II

# **TECHNICAL/NON-TECHNICAL SKILLS:**

• Scala, C, MATLAB, Java, Python

Microsoft Word, Excel, PowerPoint

• Adobe Premiere, Photoshop

HTML, CSS, JS, React JS

IntelliJ, Visual Studio, VMware

Linux/Unix, Windows 7/8/10

AutoCAD, Inventor, Revit

Google Docs, Sheets, Slides

Bilingual in English and Chinese

## **PROJECTS:**

Instant Messenger: C, Linux/Unix

March 2022 - April 2022

- Implemented packet encoding and decoding for a basic messenger protocol.
- Executed pointer arithmetic, raw memory access, and data serialization to manage structures of data.

#### Conway's Game of Life: C, Linux/Unix

February 2022 - March 2022

- Usage of multidimensional arrays and repeated computations to create a simulation.
- Automated functionality of data models into simplified computations and functions.

#### Enemy Artificial Intelligence: Scala, IntelliJ

November 2021 - December 2021

- Programmed enemy bots in a simulation game using data structure concepts such as linked lists, trees, and graphs.
- Administered algorithms that expanded the functionality of each data structure.

#### Genetic Algorithm: Scala, IntelliJ

October 2021 - November 2021

- Wrote algorithms to solve optimization problems without the usage of mutable variables and states.
- Employed and applied concepts of functional programming with immutable types, recursion, and functions.

#### **EXPERIENCE:**

# Data Entry Clerk, Kumon

July 2021 - August 2021

Staten Island, NY

- Assisted multiple students to strengthen, improve, and build brainstorming, analytical, and problem-solving skills.
- Entered coursework data quickly and efficiently allowing ease of access for tutors and classroom preparation.

### **VOLUNTEER EXPERIENCE:**

# Teacher Assistant, Asian-American Target Summer Camp

July 2016 - August 2019

Brooklyn, NY

- Conducted peer to peer tutoring that enabled struggling students to increase in performance.
- Managed classroom to facilitate an optimal learning environment for teachers and students.

#### **ACTIVITIES:**

• Vice Head of Construction, Theta Tau Professional Co-Ed Engineering Fraternity

Participant, University at Buffalo Hackathon Fall 2021

• Member, Stuyvesant High School Ultimate Frisbee Team

Vice President, Stuyvesant Rubik's Cube Club

February 2022 - Present

November 2021

**September 2016 - June 2020** 

September 2016 - January 2018