Derek Deng

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EDUCATION   May 2022

Arizona State University   4.00 GPA
In progress for a Bachelor's Degree in Computer Science - Tempe, AZ
- Dean's List (Fall 2018, Spring 2019, Fall 2019, Spring 2020).
- Part of March for Our Lives chapter in ASU.
- Part of Not My Generation – Arizona Coalition.

SKILLS

- Worked with **C, C++, Java**, **Python, MATLAB**, **Scheme,** and **MIPS**.
- Have been exposed to **UNIX** and some **JavaScript**, **node.JS** and **Prolog**.
- Knowledgeable in **Windows** operating system. Basic knowledge in **Linux**, **Excel** and **PowerPoint**.
- Basic knowledge of troubleshooting computer hardware and computer software.
- Currently learning data structures and algorithms in **C++**.
- Currently learning software development processes such as **Agile** development.
- Currently exploring **GitHub** and **Git**.

PROJECTS   June 2017 – October 2020

- Programmed a command-line genetic algorithm in **C++** which uses randomized data sets to score genetic fitness, with the goal of improving fitness in a theater that simulates COVID-19. Each generation is comprised of people whose genes are from a "mother" and "father" with a chance of mutation.
- Created multiple command-line minigames using random distribution via **C**. Used simple artificial intelligence as the opponent.
- Created a small message-bot on the messaging service "Discord" using **DiscordJS**, a **node.JS** module. The bot replies to certain keywords and can perform administrative tasks such as removing users and clearing messages.
- Experimented with use of "First Order Motion Model for Image Animation", in which a picture can be animated onto a video template using **Python** via **Google Collab**.
- Programmed a **Java** applet with **JavaFX** that makes simple geometric fireworks.
- Used **Python** to decrypt basic ciphers with a known key.
- Wrote a **Java** applet that allows the user to create and submit movie reviews using **JavaFX**. Applet saves data within the program.
- Created and programmed a rudimentary **JavaFX** program that allows the user to draw.
- Used **Intel Quartus Prime** to design a simple virtual processor and tested the processor via an **Intel FPGA MAX** board.
- Main contributor of managing and programming an autonomous robot that can navigate through a maze via **MATLAB** and could pick up a passenger.
- Created a small 3D game on Unity using **JavaScript** using imported models via **AUTOCAD**.
- Built desktops under various budgets and specifications

REFERENCES UPON REQUEST