Colin Schmierer

(209) 327-6338 Lodi, CA colin6442@gmail.com
github.com/colin6442 linkedin.com/in/colin-schmierer

EDUCATION

2019–
–2022 **University of California Merced**
Bachelor of Science - Computer Science and Engineering (CSE)
Graduated May 2022

EXPERIENCES

2022 **Object Detection Research**

- Worked under Professor Xiaoyi Lu with a team
- Investigated ways to increase accuracy of object detection when looking for tiny objects
- Our research paper was accepted at the 2022 BenchCouncil: International Open Benchmark Council
- This project utilized Python and many popular object detection models (YOLOv3, YOLOv5, CenterNet, Faster R-CNN, and MobileNet SSD) and libraries (TensorFlow and PyTorch)

2021 **Software Solution for Western Digital - Senior Capstone Project**

- Responsible for delegating tasks within the team and communicating with the company
- Successfully negotiated the scope of the project and provided a dashboard that collected/displayed information about the laboratory computers
- This project utilized Python, MySQL, HTML, CSS, PHP, and Git

2018–
–2019 **San Joaquin Delta College Robotics Competition**

- Constructed and programmed a robot with a teammate to follow a set path while avoiding obstacles
- Achieved first place in 2018 and second place in 2019

PROJECTS

Course Availability *[2021] [Python]*

- Worked with a team to create a program that would check the number of available spots in a given UC Merced class and inform users of open seats
- Sends updates through the Discord messaging platform
- Allows users to set up notifications for multiple classes
- Faster than Coursicle by approximately 1 to 3 minutes

Networking Project *[2021] [C/TinyOS]*

- Implemented logic to allow simulated nodes to send information to any node in the network
- Nodes utilize TCP to reliably send packets to each other
- Implementation included neighbor discovery, network flooding, link-state routing with dijkstra, and TCP

Super Hexagon Bot *[2022][C++]*

- Created a program to complete a game without human interference/input
- Used image processing to collect location of obstacles
- Computed the best path to take to avoid obstacles

Snake Game *[2021] [C++]*

- Created a snake game with a partner using C++ and OpenGL
- Used classes to hold information for game objects
- Implemented textures using SOIL library

WORK EXPERIENCE

2020 **Amazon Fulfilment Center (SCK1) - Lift Operator**
Operated a lift machine to retrieve products from racks and deliver them to be packed and shipped. Worked from the beginning of July to the end of August 2020

SKILLS

Python [numpy, opencv2, tkinter, matplotlib] *(Proficient)*, **C/C++** *(Proficient)*, **MySQL** *(Intermediate)*, **JavaScript** *(Intermediate)* **Linux** *(Proficient)*