# Shaoyuan (Eren) Chang

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#### **EDUCATION**

University of Florida, Herbert Wertheim College of Engineering | May 2026 Bachelor of Science in Computer Science | Gainesville, FL

GPA: 3.97

#### Relevant Coursework

- Computer Science Related
  - o Programming 1 and 2
  - o Data Structures and Algorithms
  - o Computer Organization
  - o Enterprise Software Engineering Practices
- Machine Learning Related
  - Intro to Machine Learning

# School-Related Projects

- Created a version of Sudoku alongside a team utilizing the Pygame library
- Developed image processing software with a CLI that could perform tasks such as adding, subtracting two images
- Used SFML and Chrono library to create a version of Minesweeper with timer and recursive reveal
- Implemented an AVL tree which allows sorting by student ID

## PERSONAL PROJECTS / RELEVANT EXPERIENCE

# Student Assistant in Machine Learning and AI | November 2023 - ongoing

- Assisted researchers in topics relating to Machine Learning, Pattern Recognition, and Signal/Image processing
- Cooperated in interdisciplinary teams
- · Performed these tasks in Python

#### Unipath | December 2023

- Created a tool which visualizes a chosen place using Kruskal's algorithm
  - Includes place to place mapping along with walking ETAs
- Utilizes the PyQT framework for GUI
  - o Networkx was used for graphs
- Gathered locations based on Wikipedia tables via http requests

#### Charisma Calculator | September 2023

- Programmed a tool which determined how close an input face was to the "charisma" face commonly found in social media
- Gathered data via scraping and fair use databases
- Preprocessed the data by standardizing dimensions, grayscaling, and standardizing pixel value
- Trained a custom sequential deep neural network using **Tensorflow** on what a "charisma" face was and was not based on the data
- Outputted the results with category and confidence index using a CLI

# Discord Music Bot in Python | April 2023

- Created a music bot in Python using various libraries in order to play music in a voice channel on the application Discord
- Utilizes new Discord elements such as slash commands, buttons, drop-down menus, view objects
- Experience with AWS EC2 by using an instance to host the bot

# **PAST EXPERIENCES**

- Gaucho Chima Steakhouse (May Nov 2023)
- Kitchen Team Member Wafu (May Aug 2022)

# **SKILLS**

Computer Science, Python, C++, Programming, Data Structures, Algorithms, Computer Organization, Pygame, Doubly Linked List, Image Processing, CLI, SFML, Chrono, Machine Learning, AI, Python, Facial Analysis, Data Scraping, Databases, Data Preprocessing, Neural Network, TensorFlow, Cloud Computing, AWS EC2, Discord, Slash Commands, Buttons, Drop-down Menus, View Objects, PyQT