

# 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**
  - Programming 1 and 2
  - Data Structures and Algorithms
  - Computer Organization
  - Enterprise Software Engineering Practices
- **Machine Learning Related**
  - AI Fundamentals
  - 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* libraries to create a version of Minesweeper with timer and recursive reveal
- Implemented an *AVL tree* which allows sorting by student ID
- Implemented simplified version of *PageRank algorithm* with *graph theory and adjacency list*

## LEADERSHIP

**Chinese American Student Association** | **August 2023 - May 2024**

- **Sports Coordinator**
  - Led and organized intramural sports practices
  - Worked with a team to organize large-scale events
  - Prepared freshman for university life
- **Mid-Autumn & Lunar New Year Advertising Committee Head**
  - Organized a team to advertise for 800+ people events
  - Created graphics & T-Shirts for said event
  - Established deadlines and intuitive workflows

## PERSONAL PROJECTS / RELEVANT EXPERIENCE

**Student Assistant in Machine Learning and AI** | **November 2023 - January 2024**

- Assisted researchers in topics relating to *Machine Learning, Pattern Recognition, and Signal/Image processing*
- Cooperated in interdisciplinary teams
- Invested in time-management skills

**Unipath** | **December 2023**

- Created a tool which visualizes a chosen place using *Kruskal's algorithm*
  - Includes place to place mapping along with walking ETAs
- Utilized the *PyQT* framework for the GUI
  - Utilized *Networkx* 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 a "charisma" convention
- 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*
- Learned *AWS EC2* by using an instance of it to host the bot

## PAST WORK 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, Facial Analysis, Data Scraping, Databases, Data Preprocessing, Neural Network, TensorFlow, Cloud Computing, AWS EC2, Discord, Slash Commands, Buttons, Drop-down Menus, View Objects, PyQt, Enterprise Software Engineering, Agile Methodologies, Design Patterns, Software Architecture, Git, GitHub, HTTP, RESTful Services, SQL, Database Design, DevOps, CI/CD, Automated Testing, Docker, JIRA, Slack, Networkx, Web Technologies, Version Control, Collaboration Tools