Daniel Xiong

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Education

- **University of California, Santa Cruz** Sept. 2018 – Mar. 2021
  Computer Science B.S., GPA: 3.80

Experience

- **Undergraduate Research**
  University of California, Santa Cruz June 2020 – Present
  - Leading an undergrad research team under Dr. Yi Zhang in UC Santa Cruz's IRKM Lab.
  - Developing a virtual assistant for medical symptom diagnosis using state-of-the-art technologies.
- **Software Development Intern**
  UAES Shanghai June 2019 – Aug. 2019
  - Developed a license plate detector using Python's OpenCV module.
  - Learned and applied various machine learning algorithms, specifically convolutional neural networks, to improve upon the OpenCV license plate detector script.
  - Worked with my team on an Inertial Navigation System for vehicles in an underground parking lot environment.
  - Developed a Python script that automated the extraction, analysis, and transfer of compressed files from one machine to another through SSH.

Projects and Extracurriculars

- **Tesla Stock Prediction**
  - Used machine learning, natural language processing, and data mining techniques to try and predict Tesla stock performance based on Elon Musk's Twitter feed.
  - Used sentiment analysis and implemented many predictive models, such as decision trees, random forests, naïve bayes, and neural networks.
- **smile**
  - Created facial recognition login software as an alternative to Windows Hello using computer vision.
  - smile works on any webcam and computer, whereas Windows Hello requires expensive webcams with IR sensors for biometric scanning.
- **hiwhatsyourna.me**
  - Created a web app to help connect people in a college dorm environment.
  - Users input information that they want to share into a webform. A QR code is generated for them to put on their dorm door; the QR code leads to a dynamically created web page containing the user's information.
  - Created with Python's Flask framework and a SQL-Alchemy database. Hosted with Google Cloud's App Engine.
- **Remake of Flappy Bird game**
  - Created a Java Swing and Java AWT remake of the popular game Flappy Bird.
  - This remake varies from the original in that at certain score thresholds, the gravity and colors become inverted.
- **Programming Competitions**
  - Competed in the USA Computing Olympiad at the Bronze, Silver, and Gold levels.
  - Competed in the Lockheed Martin CodeQuest programming competition in Sunnyvale, CA.
  - Competed in the Stanford University ProCo programming competition.

Skills

- **Languages**: Python, C, Java, LaTeX
- **Technologies**: Git, Google Cloud, TensorFlow, Keras, Scikit-Learn, OpenCV, Pandas, Matplotlib