Will Farhat

Los Angeles, CA   willf668@gmail.com   (626) 361-3282   GitHub

Education

- **University of Southern California** – B.S. in Computer Science, May 2025
- **Harvard-Westlake High School** – Class of 2021, Honor Roll
- **BSA Troop 355** – Eagle Scout

Experience

- **USC One World Terrain** – Undergrad Research Fellowship   **August 2021 – Present**
  - Working with the Department of Defense through USC's Institute for Creative Technologies to prototype 3D terrain scanning techniques and long-term digital terrain storage
  - Building annotation algorithms and synthetic data for terrain visualization using point clouds

- **Tiny Headed Kingdom** – Full-stack Developer   **July 2020 – January 2021**
  - Developed Tiny Headed Game, a cross-platform multiplayer video game for stuffed animal company Tiny Headed Kingdom; final game played by 800+ unique users
  - Built with NodeJS and PHP (backend), GameMaker Studio 2 (frontend), and AWS (DB/Hosting)

- **USC QED Research Lab** - Software Engineering Intern   **February 2021 – June 2021**
  - Designed Multi-Modal Visualizer, an open-source data visualization tool for medical researchers to collect and analyze time-series data from multiple sensor streams
  - Used Python, ReactJS, and the TIG Stack (Telegraf, InfluxDB, and Grafana), all deployed with Kubernetes

- **HW Inc** – Organizer and Instructor   **November 2018 – June 2021**
  - Organized and taught classes at Harvard-Westlake's 45-person entrepreneurship camp
  - Designed an online video game hub called Inc Life for the camp during the Covid-19 Pandemic; enabled participants and alumni to communicate through a virtual recreation of the school library

- **Leaders United for Change** - Computer Science Mentor   **March 2020 – August 2021**
  - Supervised online Python tutoring sessions through Zoom for over 50 middle school students
  - Wrote and taught 3 online 20-person summer camps about Python, HTML, and ML

Skills + Projects

- **Environments** – Ubuntu/Kali Linux, Windows, MacOS
- **Tools** – Git, Unity, Unreal, AWS EC2/S3/Elastic Beanstalk, Firebase, Docker/Kubernetes, GameMaker
- Languages and Frameworks
  - **Python, OpenCV, TensorFlow**   **5 years**
    - ReMotion – 3D body tracking software
    - FreehandVR – VR hand tracking software
  - **C++, C#**   **4 years**
    - Outset – a nonlinear 2D platformer that I've been working on since August 2017
    - MMOMaker – open-source MMO framework for GameMaker Studio 2
  - **Java**   **3 years**
    - Solutions for PicoCTF 2019-2021, Advent of Code 2018-2020
    - Data Structures and Algorithm studies for *AP Computer Science A* and Leetcode
  - **HTML, CSS, Javascript/Typescript, ReactJS, NodeJS**   **2 years**
    - willfarhat.com – personal website hosted on a Raspberry Pi webserver at my home
    - Coffeehouse – WebRTC powered conference calling for music sharing and virtual jam sessions