Will Farhat

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### Education

**Bachelors of Science, Computer Science** **May 2025**

University of Southern California

**High School Diploma**  **June 2021**

Harvard-Westlake High School 4.43/3.89

### Skills

* C++, C#, Python, Java, JavaScript, Typescript
* Node.js, React, OpenCV, TensorFlow
* Git, Unity, Unreal Engine, AWS EC2/S3/Elastic Beanstalk, Docker/Kubernetes, GameMaker

### Work Experience

**Undergrad Research Fellow**   **August 2021-Present**

[USC One World Terrain Project](https://ict.usc.edu/prototypes/one-world-terrain-owt/), Los Angeles, CA

* Working with the Department of Defense to map environments using deep learning and point cloud segmentation
* Researching existing solutions and performing comparison tests between different DL models
* Building artificial environments with Unreal Engine for additional training data
* Writing research papers on new advancements in photogrammetry and segmentation techniques

**Software Engineering Extern**  **February 2021-May 2021**

[USC QED Research Lab](https://qed.usc.edu/), Los Angeles, CA

* Developed Multi-Modal Visualizer, a data visualization tool for medical researchers to analyze time-series sensor data
* Built with Python, React, the TIG Stack (Telegraf, InfluxDB, Grafana), and Kubernetes

**Freelance Full-Stack Developer**  **July 2020-January 202**1

[Tiny Headed Kingdom](https://tinyheadedkingdom.com/), Studio City, CA

* Developed [Tiny Headed Game](file:///C:\Users\willf\AppData\Local\Temp\MicrosoftEdgeDownloads\18d2bb71-a0df-4cbf-98de-2ff3cf6e29cb\thkgame.com), a multiplayer video game for the company’s Holiday 2020 marketing campaign
* Built with Node.js and PHP (backend), GameMaker Studio 2 (frontend), AWS (Hosting), and Firebase (DB)
* Managed server CI/CD during the game’s rollout; final product played by over 800 users

### Involvement

**Organizer and Instructor,** [HW Inc](https://www.inc.hw.com/)  **November 2018-June 2021**

* Co-led Harvard-Westlake’s 45-person annual entrepreneurship camp for 3 years
* Taught workshops on competitive landscapes, branding, and MVP development
* During the Covid-19 Pandemic, designed an online hub allowing participants and alumni to communicate through a multiplayer recreation of the school library

**Computer Science Mentor,** [Leaders United for Change](https://leadersunitedforchange.org/) **March 2020-June 2021**

* Supervised online Python tutoring sessions through Zoom for over 50 middle school students
* Wrote and taught a 6-week summer program about Python, HTML, and ML to 60 students

### Projects

* [**ReMotion**](https://willfarhat.com/#remotion) – 3D positional tracking software for game design
* [**MMOMaker**](https://willfarhat.com/#mmomaker) – open-source MMO framework for GameMaker Studio 2
* [**Coffeehouse**](https://willfarhat.com/#coffeehouse) – WebRTC powered conference calling for music sharing and virtual jam sessions

### Honors and Awards

* **USC CURVE Fellowship**, 2021-2022
* **Silver Medal**, Scholastic Art & Writing Awards, 2020