

Will Farhat

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Education

University of Southern California – Viterbi School of Engineering

Bachelors of Science in Computer Science and Games

Honors: Dean's List, CURVE Research Fellowship

Expected Graduation: May 2025

GPA: 3.91

Harvard-Westlake High School

June 2021 | GPA: 4.43/3.89

Skills

- C++, Java, Python, JavaScript/TypeScript/HTML/CSS, C#
- React, Node.js, Express.js, GraphQL, MongoDB, OpenCV, TensorFlow
- Git, Linux, AWS EC2/S3/Elastic Beanstalk, Firebase, Docker/Kubernetes, Unity, Unreal Engine, Steamworks

Experience

Undergrad Research Fellow

August 2021-Present

USC One World Terrain Project, Los Angeles, CA

- Researching new advancements in segmentation techniques for large-scale terrain mapping with deep learning; to date, have found and presented 12 different academic publications to the team
- Building synthetic training data in CloudCompare, with the goal of expanding training data by 20%

Software Engineering Extern

February 2021-May 2021

USC QED Research Lab, Los Angeles, CA

- Developed Multi-Modal Visualizer, a Python visualization tool for medical time-series data, in 5 weeks
- Interviewed 6 lab researchers and ensured the tool fulfilled their primary needs: handle different types of sensor streams concurrently, automatically parse CSV files, and run on modern and legacy systems
- Configured automated deployment in Kubernetes to remove the need for manual setup and dependencies

Freelance Full-Stack Developer

July 2020-January 2021

Tiny Headed Kingdom, Studio City, CA

- Designed Tiny Headed Game, a multiplayer game for the company's Holiday 2020 marketing campaign
- Deployed frontend and backend code with Node.js, GameMaker Studio 2, AWS EC2, and Firebase
- Managed server CI/CD during the game's rollout; final product played by over 800 users

Involvement

Organizer and Instructor, HW Inc

November 2018-June 2021

- Managed and organized Harvard-Westlake's 45-person annual entrepreneurship camp for 3 years
- Taught workshops on competitive landscapes, branding, and MVP development
- Designed and programmed an online social hub in 3 weeks during the Covid-19 pandemic, allowing over 100 participants and alumni to communicate through a multiplayer recreation of the school library
- Presented each year's progress to audiences of up to 300 people

Computer Science Mentor, Leaders United for Change

March 2020-June 2021

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

Projects

- **FreehandVR** – marker-less VR hand-tracking prototype using C# and Python
- **ReMotion** – 3D positional tracking software for AR game design using Python and C++
- **Markov Books** – procedural book extender using a Java implementation of Markov chains
- **MMOMaker** – open-source MMO framework for GameMaker Studio 2
- **Willfarhat.com** – full-stack website hosted on Linux and built with React, TypeScript, and Node.js
- **Coffeehouse** – WebRTC and JavaScript powered conference calling for music sharing and jam sessions
- **Inc View** – Node.js video calling web app to connect multiple computers into a geographic camera network