Cynthia Chang

Email: cchang80@usc.edu | **Phone**: (925)-389-8315 | **LinkedIn**: linkedin.com/in/cchang98
Address: 2390 Portland St., Los Angeles 90007 | **Website:** c-chang.github.io/pages/

-- **RESEARCH INTEREST** --

Fascinated by the intersection of computer graphics and human-computer interaction, and its impact on our daily lives, I am passionate about contributing to creating healthy digital representations of ourselves. For example, it is both captivating and terrifying to me that camera filters on our phones can perform body alterations in real time, essentially live photoshopping. I find how we emulate real-life objects and creatures in digital renditions (and our perceptions of, and interactions with them) compelling, and I would like to expand on the human-psyche relations in my personal endeavors.

-- **EDUCATION** --

University of California, Berkeley || *Berkeley, CA*   **Aug. 2016 - May 2020**
Bachelor of Arts in Computer Science
Cumulative GPA: 3.26/4.0; **Upper-Division GPA:** 3.35/4.0 (COVID-19 P/NP Affected)
Relevant Coursework: Computer Graphics, Artificial Intelligence, Machine Learning, Database Systems, Data Structure, Principles & Techniques of Data Science, Computer Security, Efficient Algorithms & Intractable Problems

-- **PAST PROJECTS** --

Minecraft Water Shader || *Back End*
- Functioned as a key team member for project research and development using OpenGLSL and C++.
- Produced efficient real-time renderings of water reflections and movement via vertex data by implementing the Blinn-Phong shading model with sampled environment textures and variable light in specular calculations.

2-Layer Feed Forward Neural Network || *Back End*
- Implemented both forward-/backward-propagation machine learning methods for ReLU, Softmax, Tanh functions, and cross-entropy and L2 losses in Python. Developed both fully-connected and Elman layers.
- Achieved >96% accuracy on the Iris dataset and ~73% on the Higgs dataset (Kaggle) with fully-connected layers, and ~80% accuracy on a sine wave dataset using an Elman layer implementation.

Orientation Scheduler Web Application || *Full Stack*
- Designed a single-page web application from scratch using Google Firebase, Angular, and Node.js, including implementing a third-party authentication layer.
- Provided standard CRUD database functionality to authenticated users of varying permissions to personalize schedules with limited capacity events, selected from a predetermined master schedule.

-- **EXPERIENCE** --

Charles Schwab & Co., Inc. || *Austin, TX*   **Sept. 2020 – Present**
Specialist - Software Development & Engineering (Full Stack), Aug. 2022 - Present
Software Engineer, Associate (Full Stack), Sept. 2020 - Aug. 2022
- Promoted to Specialist Software Engineer for consistently exceeding performance and deliverables' expectations.
- Key developer of new products for company's most-visited pages, and maintenance work of legacy applications.
- Spearheaded research & development of several standout features to enhance the overall client experience.
- Praised by senior developers for high-quality work and routinely delivering the most story points to Agile sprints.
- Leveraged communication skills to effectively collaborate with stakeholders and cross-functional teams.

U.C. Berkeley New Student Services || *Berkeley, CA*   **Sept. 2018 – Sept. 2019**
Student Coordinator
- Reduced manual workload by 95% by developing a Python executable which automated student grouping tasks.
- Organized 7 off-campus excursions and served as the liaison for all communication between venues, student leaders, and volunteers during the event. Designed a cohesive template for over 140 unique itineraries.

Undergraduate Research Apprentice Program || *Berkeley, CA*   **Jan. 2019 – May. 2019**
Research Apprentice
- Performed thorough data cleaning of over 1000 sensor readings for algorithm training to predict seismic activities.

-- **SKILLS & INTERESTS** --

Technical: C#, TypeScript/JavaScript, Java, Python – Numpy, Pandas; C/C++, OpenGLSL, HTML/CSS, SQL
Languages: Mandarin Chinese, French (Elementary)
Interests: Bouldering, Classical Piano, Horticulture