Christofer Sanrow

Los Angeles, CA | 818-975-0628 | chrissanrow.dev@gmail.com | linkedin.com/in/christofer-sanrow | chrissanrow.live

Education

University of California, Los Angeles (UCLA) Expected Jun 2027

Computer Science, B.S. *GPA: 3.75/4.0*

- Relevant Coursework: Computer Architecture, Operating Systems, Computer Graphics, Software Construction, Data Structures & Algorithms, Linear Algebra, Differential Equations, Discrete Math, Probability, Optics

Technical Skills

Programming Languages: C++, C, C#, Bash, Python, SQL

Libraries: STL, Boost, OpenGL, OpenCV, GLFW, ImGui, C++ Rest SDK

Frameworks: Clang, GTest, GMock, Qt, LLVM

Tools & Technologies: CMake, Git, gdb, Valgrind, Unity, Unreal Engine, Linux, Docker

Experience

Software Engineer Intern Jun 2025 - Sep 2025

Esri *Portland, OR*

- Collaborated with team to rearchitect high-performant **C++** core providing geospatial and mapping functionality to a wide range of SDKs for different platforms, empowering developers to integrate geospatial data in their applications.
- Enabled saving scenes and their respective geospatial and 3D objects by engineering serialization/deserialization routines which leverage template metaprogramming, dependency injection, and various modern C++ features.
- Improved efficiency of ad-hoc testing of geospatial features and allowed developers to easily interact with and modify scenes by implementing a menu-based user interface for an internal testing app utilizing **ImGUI** and **GLFW**.
- Facilitated saving state upon crash through interprocess piping for thread-safe signal handling in multithreaded app.
- Delivered 3D object stats while maintaining responsive UI, by leveraging pplx library for async/concurrent fetching.
- Increased suite code coverage by **20%** by architecting CI/CD pipelines in Jenkins and tests with GTest and GMock.
- Raised test app visibility and usage by authoring documentation and presenting enhancements to **50+** stakeholders.

Projects

Westwood Tour Generator | *C++* | GitHub

- Generated console-based tours of the Westwood area with commentary and navigational instructions using C++.
- Accessed coordinates, geodata and points of interest for **20000+** streets in constant time through custom hashmap.
- Reduced compute and produced **50%** shorter routes with custom stops through A* path-finding implementation.

Raytracer | *C++* | GitHub

- Simulated diffuse, dielectric, and metal materials on 3D surfaces using raytracing techniques implemented in C++.
- Produced realistic 3D scenes utilizing geometric and graphical methods such as gamma correcting and antialiasing.

MeldsFind | *C++, OpenCV* | GitHub

- Detected Mahjong tiles from a given image through computer vision powered app leveraging **OpenCV** and C++.
- Preprocessed images for Mahjong tile separation by applying grayscale, gaussian blur and canny edge detection.

jAIce: Empathetic Chatbot | *Python, Pandas, Pytorch/aitextgen* | GitHub

- Led back-end development on team of 5 for **NLP**-driven web app producing empathetic responses to users' prompts.
- Deployed web-app through **Docker** and used **Flask** to connect backend model which was fine-tuned through **aitextgen** and **Google Colab** on dataset of 25000 emotional conversations preprocessed with **Pandas** and **NLTK**.