Sanjay Sankaran

Computer Science Student
zyugyzarc@gmail.com | github.com/zyugyzarc | linkedin.com/in/sanjay-sankaran

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Education

University of Washington Seattle - Bachelors in Computer Science (2024 - 2026)

Bellevue College - Associates in Arts and Sciences (2023 - 2024)

Skills

- Languages: C, C++, Python, Javascript, Java, GLSL (glslc/spv)
- Application Development: Datastructures for Algorithm Optimization
- Web Development: Flask and Django backends, REST apis, Websockets
- Computer Graphics: Vulkan, GLSL shader programming, Blender 3D
- Linux: System Administration, Bash scripting and Automation
- Embedded programming: C++ for arduino, attiny and esp boards; python for raspberry pi

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Projects

Vulkanized (Work in Progress)

- A Vulkan wrapper / simplified API, used to make a 2D physics engine.
- A Study on Graphics Hardware, GPGPU and interaction models.
- Skills: Vulkan, C++, Parallelism, Cross–Pipeline synchronization

TraiNNer

- A Platform to design and create neural networks, built on top of PyTorch
- Helps new users create, draw, test and train neural nets with no code.
- Skills: PyTorch, QT5, Graph Data Structures, Recursive Tree Evaluation.

D-chat

- A decentralized peer-to-peer chat application that uses WebRTC, built with python.
- A Study on network design, distributed systems and decentralized infrastructure. Also helps users communicate peer-to-peer without a 3rd party server.
- Skills: Networking (WebRTC, HTTP), REST APIs, Cloud Server management, Databases, Python.

Ascii-Render

- a 3D raster engine that runs in the terminal, rendering 3D models in realtime.
- A study on Graphics Processing, Shader Programming and Mathematical Models of 3D Objects.
- Skills: Linear Algebra, Trigonometry, C++, Python, Linux/Bash

Arrow

- An interpreted programming language implemented in java.
- A study into the depths of Interpreters, JIT compilers, and tools like LLVMpipe.
- Skills: Regex Token Matching, AST