DIVYAM AHUJA

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EXPERIENCE

Advanced Micro Devices (AMD)   Bangalore
Software System Designer (Software Engineer)   *August 2022 - Present*
- Applied precision java tuning techniques that resulted in a remarkable **2%** enhancement in performance.
- Spearheaded the development of automation scripts that streamlined the optimization process, resulting in quicker turnaround times and increased productivity.
- Developed innovative visualization dashboard and tools for monitoring OpenJDK performance periodically using **React.js**, **JavaScript** and **Python**, providing real-time tracking of OpenJDK performance metrics, allowing for proactive identification of performance degradation points.

Chromium   Remote
Google Summer of Code Contributor (Open-Source Contributor)   *May 2022 - September 2022*
- Explored different design patterns and contributed to the development of specialized libraries tailored for **AudioWorklet** and **WebAssembly** interaction.
- Engineered an innovative design pattern employing **Web Workers**, **Atomics**, and **SharedArrayBuffer** technologies to facilitate the execution of **WebAssembly** and Audio Processing code on a dedicated thread. This strategic approach significantly enhanced isolation, security, and overall user experience.
- github.com/DivyamAhuja/gsoc-chromium-freequeue

SKILLS

Languages: C, C++, Python, JavaScript, TypeScript, Rust, Go (Golang), Java
Frameworks: React, Next.js, Node.js, Deno, Svelte, Express.js
Tools/Platforms: UNIX/Linux, Shell, Git, Docker, Kubernetes, Emscripten, WebAssembly
Databases: MySQL, MongoDB, Fauna, PostgreSQL

PROJECTS

fastbin: A code sharing web app | *React.js, Next.js, Serverless functions (Vercel), Serverless Database (Faunadb), TypeScript*
- A fullstack code sharing web application with **Next.js** frontend, a **100% serverless backend** using Vercel Serverless functions and **Fauna** for serverless database.
- github.com/DivyamAhuja/fastbin, fastbin.divyam.dev

YMeet | *React.js, Socket.io, Node.js, WebRTC, Express.js*
- A full-stack video call application made using **React.js** and **Express.js**, using **WebSockets** and socket.io for P2P connection and **WebRTC** credentials sharing. Implements peer to peer connection using WebRTC to transmit video for upto 4 connections.
- github.com/DivyamAhuja/YMeet, ymeet.divyam.dev

3D Rendering Engine | *C++, CMake, OpenGL, GLTF, GLFW*
- An OpenGL based 3D renderer written in **C++**, supporting GLTF file loading and Phong model of illumination.
- github.com/DivyamAhuja/nyan-renderer

Snake in WebAssembly | *C++, CMake, WebAssembly*
- A prototype implementation of Snake game written in **C++** with olcPixelGameEngine.
- Ported to web using **WebAssembly**.
- github.com/DivyamAhuja/snake_wasm, divyam.dev/snake_wasm

EDUCATION

Deenbandhu Chhotu Ram University of Science and Technology   Sonipat, Haryana, India
Bachelor of Technology (B.Tech.) Computer Science & Engineering (CGPA: 7.79)   *August 2018 – August 2022*

COURSES AND CERTIFICATIONS

MITx 6.86x: Machine Learning with Python-From Linear Models to Deep Learning   Virtual, edX
MITx, edX   *December 2020*
CS50AI: CS50's Introduction to Artificial Intelligence with Python   Virtual, edX
Harvard, edX   *July 2020*