

DIVYAM AHUJA

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EXPERIENCE

AMD

Bangalore

Software System Designer

August 2022 - Present

- Member of Java Performance Team, working on optimizing and tuning Java on AMD processors.
- Engineered a refined Java benchmark script, applying precision 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.
- Engineered innovative visualization tools for OpenJDK performance data, providing clear insights into bottlenecks and opportunities for further optimization.

Chromium

Google Summer of Code Contributor

May 2022 - September 2022

- Engaged in a dynamic exploration of design patterns and contributed to the development of specialized libraries tailored for AudioWorklet and WebAssembly interaction.
- ScriptProcessorNode, which is widely being used for Audio Processing, runs on JavaScript main thread, which is unsecure and can lead to a bad user experience.
- 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

EDUCATION

Deenbandhu Chhotu Ram University of Science and Technology

Sonapat, Haryana, India

B.Tech. Computer Science & Engineering (CGPA: 7.79)

August 2018 – August 2022

SKILLS

Languages: C, C++, Python, JavaScript, TypeScript, Rust, Go (Golang)

Frameworks: React, Next.js, Node.js, Deno, Svelte

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, deployed on vercel with **100% serverless backend**.
- Frontend is implemented in Next.js and Backend using serverless functions (Vercel) and database (Faunadb).
- Share code easily via links, and code gets deleted from database after 5 days.
- github.com/DivyamAhuja/fastbin, fastbin.divyam.dev

YMeet | *React.js, Socket.io, Node.js, WebRTC, Express*

- A full-stack video call app with node.js and express serving a REST API and reactjs used for frontend.
- 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, ymeeet.divyam.dev

3D Rendering Engine | *C++, CMake, OpenGL, GLTF, GLFW*

- An OpenGL based 3D renderer written in C++.
- Implements basic mesh loading from GLTF file and Phong model for basic illumination.
- github.com/DivyamAhuja/nyan-renderer

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