Gurtej Singh

Moscow, ID 83843

Education

University of Idaho

January 2021 – December 2024

B.S. Computer Science

Key Technical Skills, Core Strengths, Relevant Coursework

• JavaScript / React

• Python / Lua / Ruby

Assembly / AVR ASMNeo4j / Cypher / SQL

• Operating Systems

C / C++Git / Bash / Linux

C# / UnityPowerShell / Hyper-V

Analysis of Algorithms

Computer ArchitectureComputer Graphics

• Analysis of Algorithms

Projects

atechip | JavaScript, React, Console Emulator

November 2023

Moscow, ID

- Designed a retro console emulator that allows running incompatible software in a modern web browser.
- Built a window manager in React for the user interface.
- Implemented debugging capabilities for CHIP-8 games like Tetris, Pong, Breakout, Blitz, etc.

picomatrix | C, Neurses, Terminal, Screensaver

June 2023

- Recreated the digital code rain effect from the cyberpunk movie franchise, "The Matrix".
- Utilized C and the Neurses library to display the effect on a terminal.
- Documented the project details and process on GitHub.

warpspeed | Lua, Love2D, 3D Perspective Projection

March 2023

- Simulated the effect of travelling through space using Lua and the Love2D game engine.
- Achieved the illusion of a 3D space on a 2D plane using perspective projection.
- Implemented adjustable travel speed using mouse movement inputs.

spotiboi | Python, Spotify, Linux, D-Bus

February 2022

- Developed advertisement detection for the Spotify desktop app using Python and Linux D-Bus IPC service.
- Monitor any status change in Spotify to mute the app if an advertisement is playing.
- Understood inter-process communication mechanism in a desktop Linux environment.

Experience

Game Devs United January 2023 – Present

Programmer

Moscow, ID

- Designed a first-person shooter game with a team of six in Unity.
- Implemented movement and shooting features in C#.
- Presented progress report to team members in weekly meetings.

University of Idaho

August 2021 - August 2022

Moscow, ID

Food Service Crew Member

- Resolved customer concerns and relayed relevant information to supervisor.
- Ensured compliance with company service standards, inventory, and cash control procedures.
- Served customers in a friendly, efficient manner following company's steps of service.

Extracurricular

Association for Computing Machinery@UIdaho

January 2023 - Present

Member

University of Idaho

- Represented University of Idaho in a competitive problem-solving hackathon against Washington State University.
- Attended and participated in seminars and learning sessions for new and interesting technologies like the Rust programming language, Firebase cloud database, etc.

Awards and Scholarships

- University of Idaho's Dean's List (Fall 2023)
- Invitation to Idaho Scholarship (2021 Present)