PORTFOLIO

Ty Ha ● 316-226-6892 ● Hatranductai@gmail.com ● Wichita, Kansas

Website features are accessible across various platforms.

- Crafted a project management website, ensuring broad browser compatibility by avoiding experimental CSS properties. Link

- Ensured consistent website appearance across devices, operating systems, browsers, and platforms. Link

- Utilized React Native to transform websites into Android and iOS apps, with access to native APIs such as microphone and camera, beyond page display. Link

- Verification emails display elegantly on both phones and computers, featuring HTML content rather than plain text for a polished appearance. Link

- Consider screen height for optimal mobile keyboard experience. Due to inconsistent emoji styles across browsers/devices, all emojis were replaced with hosted images. Created a separate site with 7000+ generated emoji images. Link

- Adapted to mobile device orientation (horizontal or vertical) for optimal user experience. Leveraged native media capabilities, including the front camera, to fully utilize mobile device features. Link

- Accounted for native events, like touch on phones and mouse on computers, to enhance user interaction. Link

- Implemented an unconventional responsive web design method to ensure consistent display across all device sizes. Set a defined minimum width for the body element; for screens narrower than this limit, the entire website scales down proportionally. Link

- The video demonstrates user interactions in a chat room, showcasing image sharing and viewing. Moreover, the website keeps users' online status updated in real-time. Link

- The video exhibits avatar editing, allowing users to zoom in and crop their avatars. The website then calculates the image's average color to set the profile page background. Link

- Static files are optimized through minification, uglification, and obfuscation to enhance loading speed and security. Link

Data visualizations with Scalable Vector Graphics (SVG).

- Designed a business dashboard with SVG graphs for crisp data visualization. Link

- Animated force graph. Link

- Graphical heat map. Link

- Graphical scatter plot. Link

- Intuitive tree map. Link

- Interactive heat map. Link

Mathematical art and sound analysis programs.

- Used a 3D function to create a visual special effect. Link

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- Used a 2D function to visualize music. Link

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- Visualized a ringback tone that plays when callers delay answering inbound calls. Link

- Designed hearing aid software that records and enhances frequencies for those with hearing impairments. Link

- Developed a systematic program for learning how to draw stars. Link

- Have a solid understanding of the mathematics behind artificial intelligence. The AI programs are presented in the videos below. Link

- The video displays the equation of a radio signal. The radio is presented in a video below. Link

Samples of artificial intelligence programs.

- Developed AI for automated vehicle detection in video feeds, a technology applied in autonomous vehicles. Link

- Developed AI to generate jazz music, showcased as a demonstration. Link

- Developed AI to generate poems, showcased as a demonstration. Link

Game-development skills.

- Employed face-detection artificial intelligence to steer the player based on facial direction. Employed algorithms for maze generation and guiding sheep movement. Link

- Employed hand-detection artificial intelligence to direct the player based on hand gestures. Closing the hand triggers flight while opening it triggers descent. Link

- Employed face-detection artificial intelligence to control the player's actions, where bird flapping strength corresponds to the player's mouth area. Link

- Employed artificial intelligence to craft an unbeatable bot, providing a challenging experience for players. Link

- Sample of a real-time interactive multiplayer game. Link

- Sample of 3D game. Link

- Sample of 3D game. Link

Complementary expertise: hardware skills.

- Built an arcade cabinet. Link

- Built a robot pet. It can tell you jokes, tell time, answer knowledge questions from Wikipedia, and open music from YouTube. Link

- Built a car that can be remotely controlled by a mobile app. Link

- Built a handheld game console. Link

- Built a radio. Link

- Built a mechanical bird. Link

- Built a lamp out of LEDs. Link

- Built a digital clock. Link

- Programmed and configured industrial computers. Link