Haoyu Dong

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Work Experience

Peking University Institute   2023/07 – 2024/07
Frontend Developer   Changsha, China
- Developed a **LLM Chatbot** in medical field, handling front-end development using **React**, **TypeScript**, **Tailwind CSS**.
- Developed a series of data visualization projects, using **Three.js**, **Blender**, **ECharts** to create interactive and dynamic visual effects.

Tencent Music Entertainment   2022/05 – 2022/10
Frontend Developer Intern   Shenzhen, China
- Contributed to hybrid app development for **QQ Music** and **WeSing**.
- Integrated web and mobile interactions using **React** and **TypeScript**.

Works

LLM Chatbot   ☞ **Demo**
- Implemented **multimodal chat** (text, images), plugin system, and literature search.
- Utilized **Server-Sent Events** for streaming text output. Managed server state with **React Query** and implemented **optimistic updates** to enhanced user experience.

Data Visualization   ☞ **Demo**
- Implemented smooth camera transitions with **GSAP** and created a custom **smoke shader** for wind-related 3D scenes.
- Developed interactive features including line charts, pie charts, world maps, flying lines, and other dynamic visual effects.
- Enhanced the visualization experience, improving **model load times** and **rendering efficiency**.

Hybrid Mobile App   ☞ **Demo**
- Developed mini-games, live gifting, and ranking list displays.
- Integrated web and mobile app interactions via **JSBridge**, Contributed to related **npm packages**.

Open Source Projects

Comments   ★ 50
- An open-source, easy-to-use comment system, uses GitHub for authentication and stores data in Supabase.
- This project has garnered over **50 stars** on GitHub and was featured in Ruanyifeng's Weekly

Mini React   ☞ **Demo**
- A Minimal implementation of React.js and ReactDOM including **fiber architecture**, **scheduler**, **hooks (useState, useEffect)**.

Raytracing   ☞ **Demo**
- Implemented a simple **raytracing algorithm** in JavaScript, based on concepts learned from the book *Computer Graphics from Scratch*.

Contributions
- ⌥ **Fixed a css bug** in the official React docs.   ★ 10.8k
- ⌥ **Added a confetti style** and ⌥ **user custom word loop** in qwerty-learner.   ★ 14.8k
- ⌥ **Added a new syntax** for Shaku that lets you change the line's opacity.   ★ 194

Education

Hong Kong Metropolitan University   2024/09 – 2025/09
Master of Computing in Computer Science   Hong Kong

ShenZhen University   2020/09 – 2023/06
Master of Science in Materials Science and Engineering   Shenzhen, China

Hunan University of Technology   2016/09 – 2020/06
Bachelor of Science in Construction Environment and Energy Application Engineering   Zhuzhou, China

Skills

- **Front-end**: HTML, CSS, JavaScript, TypeScript, React, Vue.js.
- **Back-end**: Node.js, Express.js, Java, Python, MySQL, MongoDB.
- **DevOps**: Docker, Jenkins, GitHub Actions, AWS, Cloudflare.
- **Design**: Figma, Blender.
- **Languages**: Chinese (Native speaker), English (Fluent), Cantonese (Fluent).