

CHENYANG (RAPHAEL) DU

733 Bounty Drive, San Mateo, CA 94404

📞 919-884-1289

✉️ raphael.du@outlook.com

👤 [Portfolio](#)

🌐 [LinkedIn](#)

🐙 [Github](#)

Education

Santa Clara University, CA, USA

Master of Science in Computer Science

Sep 2023 – Present

GPA 3.94/4

Duke University, NC, USA

Master of Science in Civil and Environmental Engineering

Sep 2021 – May 2023

GPA 3.81/4

Technical Skills

Languages: JavaScript, TypeScript, Java, C++, Python, HTML/CSS, Ruby, SQL, GraphQL, R, Verilog

Frameworks: React, React Native, ThreeJS, ExpressJS, NextJS, RemixJS, Django, Flask, Springboot, Ruby on Rails

Databases & Tools: Git, GitHub, AWS, GCP, Docker, Linux, MySQL, MongoDB, LaTeX, Figma, Postman, Cypress

Work Experience

Promaxo

Jun 2024 – Present

Software Engineer Intern

Oakland, CA

- Designed and built features for innovative medical imaging platform and case management system which reduced image processing time by **30%** and improved the efficiency of managing patient information by **25%**. Ensured HIPAA-compliant patient and DICOM data storage and communication by integrating **Google Healthcare** API, enhancing data security and confidentiality.
- Collaborated with **Cross-functional teams** (software, imaging, product, data science, and clinical) to gather requirements and make sure development process is on track. Implemented features using **React, Node.js, Express, MongoDB, and GCP**.
- Adopted a **Test-Driven Development (TDD)** approach to develop unit tests, integration tests, and end-to-end tests (Cypress), increasing test coverage from scratch to **80%**. Utilized **Object-Oriented Design (OOD)** principles to create a scalable and reusable test framework, reduced redundant code work and accelerated development cycles.
- Enhanced and streamlined the **CI/CD** pipeline, reducing build setup time by **30%** and deployment time by **20%**. Integrated automated testing, npm audits, secret scans, and SonarCloud quality checks into the pipeline, ensuring high code quality and security compliance.

Lenovo

May 2024 – Present

Software Engineer Intern

Remote

- Identified the need for an engaging user interface and developed a **3D interactive** digital human application using **React.js** and **Three.js**. Integrated **Web Speech** API for real-time voice interaction and **Speech Synthesis** API for lifelike responses. Improved application user experience by providing a seamless real-time conversational AI experience.
- Built a backend with **Express** to manage voice inputs and file uploads, leveraging a custom language model with advanced NLP capabilities. Applied **MVC architecture** to streamline data flow and business logic, reducing response time by **50%** and enhancing development speed by **60%**.
- Enhanced the digital human application with AI-driven features, including an **Intelligent Meeting Assistant** for automated meeting management, **Emotion Navigation** using computer vision to analyze user expressions, **Content Filtering** for secure environments, and **Image Recognition** for smart device control.

Datatrixs

Mar 2024 – Jul 2024

Software Engineer Intern

San Francisco, CA

- Led a team** to utilize **MERN stack** to build a full-stack application with a serverless architecture that empowers CPAs by automating their workflow with data visualization tools. Customized new features based on client requirements, resulting in a **40%** increase in client investment.
- Designed and implemented a **REST API** with Node.js and Express, achieving a **25%** improvement in response time and a **30%** reduction in server load. Reconstructed the database schema to add a tab feature, optimizing data structure and integration. Integrated **Redux** for advanced state management, and continuously improved site performance and user satisfaction.

Cooledtured Collections

Nov 2023 – Mar 2024

Full Stack Web Developer Intern

Burbank, CA

- Contributed to migrating Cooledtured's storefront from Shopify's front-end to a React-based custom headless e-commerce stack (**Shopify Hydrogen + Remix.js**), enhancing scalability, performance, and faster page load times.
- Collaborated with UI/UX and Web Dev teams to build the website using **React** with **TypeScript** and **Tailwind**, and implemented a robust **GraphQL-based** search engine with predictive search and product recommendations, resulting in increased session duration, user engagement, a **15%** boost in product discovery, and a **10%** rise in sales conversions.

Projects

Personal Portfolio Website | 🐙

- Built a responsive and customizable portfolio website using **Next.js** with **Typescript** and **Tailwind**, deployed through Vercel.

Restaurant Management System | 🐙

- Architected and implemented **REST API** using **Django REST Framework** for menu-item management, cart operations, and order processing. Ensured data consistency with **MySQL** integration, incorporating authentication, search functionality, pagination, and API throttling. Reduced foreign key usage to minimize table update contention and enhance database scalability. Utilized **MySQL** for testing and debugging.