CHENYANG DU

Education

Santa Clara University, CA, USA

Sep 2023 - Jun 2025 GPA 4.0/4

Master of Science in Computer Science

Sep 2021 - May 2023 Duke University, NC, USA

Master of Science in Risk Engineering GPA 3.81/4

Work Experience

Promaxo Jun 2024 - Mar 2025

Software Engineer Intern/Coop

Oakland, CA

• Collaborated with Cross-functional teams (software, imaging, product, data science, and clinical) to gather requirements and make sure the development process is on track. Implemented features using React, Node.js, Express, MongoDB, and GCP.

- Designed and built key features for innovative medical imaging platform and case management system which reduced image processing time and improved the efficiency of managing patient information by 25%.
- Implemented a hybrid validation system for DICOM and report uploads using frontend checks, backend Signed URLs, and Cloud Functions, ensuring HIPAA-compliant storage via Google Cloud Healthcare and reducing invalid uploads by 40%.
- Developed and deployed Python-based AWS Lambda functions to automate DICOM image processing and integrate machine learning models into the web application, enabling real-time healthcare data analysis.
- Developed a scalable, full-spectrum testing framework, achieving 80% test coverage across unit (Jest), integration (Jest with Supertest and MSW), and end-to-end tests (Cypress).
- Improved the CI/CD pipeline by integrating automated testing, npm audits, secret scans, and SonarCloud checks, reducing deployment time by 20% and enhancing code quality.

Lenovo May 2024 - Dec 2024

 $Software\ Engineer\ Intern$

Remote

- Developed an immersive 3D collaborative workplace app using Three.js and Socket.IO, enabling real-time object manipulation (position, rotation, scaling) via integrated Drag and Transform controls on a shared canvas.
- Built a scalable microservices backend using Node.js, Express, MongoDB, Redis, and Apache Kafka for message queuing, enabling decoupled communication and fault-tolerant event handling. Optimized performance, reducing response time for key user actions (adding, dragging, resizing, deleting 3D objects and comments) by 25%.
- Integrated Prometheus and Grafana for real-time system monitoring and observability, improving debugging efficiency and uptime awareness.

Datatrixs Mar 2024 - Jun 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.
- Attend investors' sync meetings, improve site performance and user satisfaction based on client feedback, design and implement tab and AI chart generation feature, resulting in a 50% increase in follow-on investment.
- Reconstruct the MongoDB schema and token-based authentication flow, optimizing data transmission and sharing, directly contributed to 2 new companies' investment

Coolections

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.
- 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

FoodieGO(Food Ordering App) | 🞧

• Developed a cross platform food order delivery app using Flutter, Firebase, and Google Maps, implementing Bloc/Cubit for state management, real-time sync, authentication, push notifications, custom routing, and filtering for seamless user experience.

Restaurant Management System | 🞧

• 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.

Library Management System | 🞧

• Built a scalable REST API using Java Spring Boot, PostgreSQL, and Redis, implementing JWT authentication, role-based access control, and WebSocket for real-time updates. Optimized database queries with JPA/Hibernate and Redis caching, and deployed the system on AWS with Docker and CI/CD pipelines for scalability.

Technical Skills

Languages: JavaScript, TypeScript, Java, GoLang, Dart, Swift, Python, C/C++, C#, PHP, HTML/CSS, Ruby, SQL, Shell Frameworks & Tools: React, React Native, ThreeJS, NextJS, RemixJS, Flutter, Django, Flask, Spring/Springboot, Ruby on Rails, Redux, AWS, GCP, MySQL, MongoDB, PostgreSQL, Redis, Docker, Kubernetes, Figma, Jest, Cypress, Jira

Coursework: Object Oriented Programming, Data Structure and Algorithms, Operating Systems, Distributed System, Computer Network, Computer Architecture, UI/UX Design, Web Development, Mobile Development, Database Systems, Performance Engineering, NLP, Deep Learning, Machine Learning, Linear Programming, Nonlinear Optimization, Query Optimization, Agile team