

Edison Xu

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EDUCATION

Georgia Institute of Technology <i>Master of Science in Computational Science & Engineering</i>	Aug 2022 - Dec 2024 (Expected)
University of California - Santa Barbara <i>Bachelor of Art, Applied Economics</i>	Oct 2019 - Mar 2021

SKILLS

Language	Java, Python, Go, JavaScript, Typescript, C, HTML, CSS, R, SQL, Shell
Frameworks	React.js, Vue.js, Spring Boot, Django, Flask, Node.js, Express.js, TensorFlow, Selenium
Database/Big Data	MySQL, PostgreSQL, MongoDB, Redis, PySpark, DynamoDB, Firebase
Developer Tools	Docker, Kubernetes, Jenkins, Jira, Git, AWS, GCP, Postman, Nginx, Linux

PROJECTS

Distributed Microservices in Golang Aug 2023 - Oct 2023

- Created a suite of microservices with **Golang**, including authentication, logging, listening, and email service.
- Integrated **gRPC** for efficient communications and leveraged **RabbitMQ** for reliable asynchronous messaging.
- Architected a **PostgreSQL** database implementing role-based access control, enhancing security.
- Boosted microservices scalability and reliability by orchestrating and deploying containers with **Docker Swarm**.

AI Recognition in Edge Computing & Cloud Native May 2023 - Jun 2023

- Optimized edge computing AI recognition using **KubeEdge**, streamlining local computations and decision-making.
- Attained 98.6% accuracy in vegetable recognition using a Convolutional Neural Networks model in **TensorFlow**.
- Built a centralized management system using **Django** with **MQTT**, enhancing live oversight in multiple edge modules.
- Fostered system resilience and prompt updates by integrating a **Kubernetes** orchestrated CI/CD pipeline.

CloudBin: Cloud-Base Distributed File Storage System Jan 2023 - Mar 2023

Demo: www.cloudbinpro.com

- Designed a cloud-based storage system with **Spring Boot** and **Vue3**, delivering seamless and resumable file transfers.
- Enhanced high concurrency using **Caffeine** and **Redis**, deploying Redis Bloom filters to prevent cache penetration.
- Implemented 'Zero-Copy' technology, integrating **FastDFS** and OSS, to enhance storage efficiency and data access.
- Optimized data consistency across multiple instances using distributed lock with **Redis** and **ZooKeeper**.

InvoicePro: MERN Stack Invoice Management System Sep 2022 - Nov 2022

Demo: www.invoicepro.me

- Developed a comprehensive invoice management system with **MongoDB**, **Express**, **React**, and **Node.js**
- Streamlined invoice creation, user management, and live revenue analytics via a dynamic **RESTful API**.
- Fortified user authentication via a refresh token approach, Google OAuth, and stringent email validation mechanisms.
- Enhanced system performance under high traffic by integrating **NGINX** for load balancing and reverse proxying.

EXPERIENCE

ChineseInvestors.com Inc. July 2018 - Dec 2018

Data Analyst San Gabriel, CA

- Launched a pivotal market cycle model in an agile environment, simplifying complex stock trends into actionable insights through price strength, direction, and momentum elements, markedly improving investment strategies.
- Optimized and deployed a **PySpark** based pipeline, processing more than 10 million stock records, enhancing cross-market analytics and unveiling critical trading insights.
- Produced and delivered daily market summaries and analysis videos to a subscriber base of 43,000, providing valuable information and insights to support investment decisions. Subscriptions increased by 23% during the period.