

Edison Xu

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EDUCATION

Georgia Institute of Technology

Aug 2022 - Dec 2024 (Expected)

Master of Science in Computational Science & Engineering

University of California - Santa Barbara

Oct 2019 - Mar 2021

Bachelor of Art, Economics

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 2019 - 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.