

Chunxia (Ella) Li

chunxialims@gmail.com | [GitHub](#) | [LinkedIn](#) | [Portfolio](#)

Burnaby, BC V5J 4A5
+1 (672) 667-9259

SUMMARY

Software Engineer with 8+ years of experience designing and implementing scalable enterprise systems and microservices architectures. Extensive hands-on experience in both fast-paced startups and enterprise environments.

WORK EXPERIENCE

Freelance Software Engineer

Jun 2024 – Present

- Developed Admin Platform in [SuoGogo](#) using **Node.js**, **Express.js** and **PostgreSQL**, implemented RESTful APIs for administrative order processing, sending customer compensation, and handling customer issues.
- Independently designed and built full stack [Project Management System](#) (Trello like) using **React.js**, **Next.js**, **Express.js** and **AWS RDS-PostgreSQL**, leveraging **HTML**, **Tailwind**, **TypeScript** and **Prisma**, deployed on **AWS Amplify** and **EC2**, integrating **AWS Cognito** for user authentication and **AWS Lambda** for adding new users to database after confirmation, utilizing **AWS S3** for images storage and **AWS CloudWatch** for monitoring.

Software Development Engineer, BOE Technology Group (World Top 3 Panel Manufacturer)

Mar 2022 – Sep 2023

- Led **Agile** team to refactor monolithic OEM management system into 3 **microservices** (user center, inventory query, and inventory computation services) using **Spring Boot**, **MySQL (PostgreSQL-like)** and **Redis**, deployed on **Docker** managed by **K8s**, implementing **RabbitMQ** for asynchronous inventory updates, reducing average response time from 5 seconds to 800ms while supporting 3x concurrent user load
- Designed scalable Renovation & Expansion Project Management System from scratch using **Spring Boot**, **MySQL**, **Redis** for caching, integrating with multiple enterprise systems (ERP, BCM, PDM, SRM), serving 150+ MLED manufacturing facilities with comprehensive project lifecycle, improving operational efficiency by 60%
- Mentored 3 junior developers, enabled them to independently contribute to production-level code within 6 months.

Senior Software Development Engineer, Shihui Technology (Tech Startup)

May 2021 – Dec 2021

- Designed distributed driver tracking service handling 50K+ active drivers based on **Spring Cloud** and **Alibaba Cloud (AWS-like)**, leveraging **Kafka** for decoupled ingestion, **Redis GEO** for low-latency proximity queries, and **MongoDB** for storing time-stamped GPS trajectories, **SkyWalking (DataDog-like)** for APM, processing over 140 million location records per day with horizontal scalability

Software Development Engineer, Xinyingjie Technology

Apr 2019 – Mar 2021

- Delivered Archives Management System from scratch using **Spring Boot** and **MongoDB**, leveraging **RabbitMQ** for text extraction from attachments using OCR, video processing, and notification sending, while integrating **Elasticsearch** and IK Chinese analyzer for full-text search, reducing search response time from 10 seconds to 800ms. Deployed in 100+ universities, enabling the digital archives management.

Software Engineer, Yunzhi Internet Technology (Internet Cafe Platform Startup)

Mar 2017 – Apr 2019

- Built **RESTful APIs** for e-commerce platform Zhuanba Mall using **Spring Boot** and **MySQL**, generated **Swagger** API doc, implementing **Redis** caching for frequently accessed data, improving response time by 40%
- Developed internet cafe management system using **React**, **Express** and **MySQL**, implementing **JWT** authentication and role-based access control supporting 500+ daily active users with 99.9% uptime

Software Test Engineer, Shunwang Technology (China Top 1 Internet Cafe Platform)

Apr 2015 – Mar 2017

- Automated Web UI testing for the Franchise Management Platform using **Python**, improving test efficiency by 80%

EDUCATION

Fairleigh Dickinson University

Master of Science in Applied Computer Science; GPA: 4.0/4.0

Vancouver, BC

09/2023 – 12/2024

Beijing University of Posts and Telecommunications

Master of Mechanical and Electronic Engineering

Beijing, China

09/2012 – 03/2015

Bachelor of Mechanical Engineering and Automation

09/2008 – 06/2012

SKILLS

Languages: Java, JavaScript, TypeScript, HTML, CSS, Python, C#, C

Frameworks and Tools: Spring Boot, Spring Cloud, Node.js, Express.js, Next.js, React.js, .NET, Postman, Swagger, Jira, Junit, Jest, Elasticsearch, Logstash, Kibana, Prometheus, Grafana

Technologies: MySQL, MS SQL Server, PostgreSQL, Redis, MongoDB, AWS (**Certified AI Practitioner**), GCP, Docker, Kubernetes/K8s, Jenkins, Git/GitHub

<u>SUMMARY</u>	
<ul style="list-style-type: none"> 8+ years' experience in software engineering, Looking for backend software developer role 	

<u>SUMMARY</u>	
<p>Software Engineer with 8+ years of experience designing and implementing scalable enterprise systems and microservices architectures. Extensive hands-on experience in both fast-paced startups and enterprise environments.</p> <p>Software Engineer with 8+ years of experience designing and implementing scalable enterprise systems and microservices architectures. Recent Master's degree in Applied Computer Science with perfect GPA, combining cutting-edge technical knowledge with extensive hands-on experience in both fast-paced startups and enterprise environments.</p>	

<u>EDUCATION</u>	
Fairleigh Dickinson University <i>Master of Science in Applied Computer Science; GPA:4.0/4.0</i>	Vancouver, BC <i>09/2023 – 12/2024</i>
Beijing University of Posts and Telecommunications <i>Master of Mechanical and Electronic Engineering</i> <i>Bachelor of Mechanical Engineering and Automation</i>	Beijing, China <i>09/2012 – 03/2015</i> <i>09/2008 – 06/2012</i>

<u>SKILLS</u>	
<i>Programming Languages:</i>	Java, JavaScript, TypeScript, HTML, CSS, Python, C#, C
<i>Databases:</i>	MySQL, MS SQL Server, PostgreSQL, Redis, MongoDB
<i>Frameworks:</i>	Spring Boot, Spring Cloud, Node.js, Express.js, Next.js, React.js, .NET
<i>Cloud and CI/CD:</i>	AWS, GCP, Docker, Kubernetes/K8s, Jenkins, Git/GitHub
<i>Testing and Monitoring:</i>	Postman, Swagger, Jira, Junit, Jest, Elasticsearch, Logstash, Kibana, Prometheus, Grafana

(Solutions Architect Associate)

Designed and built full stack Project Management System using **Next.js**, **Express.js** and **AWS RDS-PostgreSQL**, leveraging **HTML**, **Tailwind** and **TypeScript**, **Prisma**, integrating **Clerk** for **OAuth2** login and **Stripe** for payment, deployed on **AWS Lambda**, utilizing **AWS S3** for course video storage, **AWS SQS** for asynchronous video processing and **AWS CloudWatch** for monitoring service, integration of AWS Lambda for serverless computing and AWS Cognito for user authentication and management

BOE Technology Group Co. Ltd (World Top 3 Panel Manufacturer)

- Designed scalable Facility Management System from scratch using React, React Native and Express.js ,
- Refactored Original Equipment Manufacturer management system from monolith to 3 **microservices** including user center service, inventory query service and inventory computation service, utilizing **Kafka** for asynchronous inventory updates, improving efficiency by 500%
- Designed scalable Renovation & Expansion Project Management System from scratch using **Spring Boot**, **MySQL**, **Redis** for caching, integrating with multiple enterprise systems (ERP, BCM, PDM, SRM), serving 150+ MLED manufacturing facilities with comprehensive project lifecycle, improving operational efficiency by 60%

-
-
- Designed scalable Renovation & Expansion Project Management System from scratch using **Next.js**, **Express.js**, **MySQL**, **Redis** for caching, integrating with multiple enterprise systems (ERP, BCM, PDM, SRM), serving 150+ MLED manufacturing facilities with comprehensive project lifecycle, improving operational efficiency by 60%
-
- Mentored 3 junior developers, acted as Scrum Master in a 10-member **Agile** team, implemented Scrumban framework (Scrum + Kanban), achieving a 95% sprint completion rate of 60+ inventory management system features
- Mentored 3 junior developers through pair programming, knowledge sharing, and structured code reviews; enabled them to independently contribute to production-level code within 6 months.
- Created and maintained team's technical documentation and development guidelines; standardized best practices that improved code quality and increased team productivity by 25%.
-
-

Beijing Shihui Technology Co. Ltd (Community Group Buying Platform Startup)

- Developed high-performance pickup point review feature for Transportation Management Service based on **Spring Cloud** framework and **Alibaba Cloud** (AWS-like, utilized **Server Load Balancer**, **EC2**, **RDS**, **CDN**) using Java multithreading, and utilized **Redis** distributed locks to handle concurrent processing across multiple servers, improving audit processing efficiency by 300%
- Designed distributed driver tracking system handling 50K+ active drivers, leveraging **Kafka** for decoupled ingestion, **Redis GEO** for low-latency proximity queries, and **MongoDB** for storing time-stamped GPS trajectories, processing over 140 million location records per day with horizontal scalability
- Built scalable Driver Delivery Tracking **microservice** to handle 1M+ location updates per day, utilizing **Apache ShardingSphere** for database partitioning, **Kafka** message queuing for real-time location processing, **Prometheus** and **Grafana** for monitoring, **Skywalking** for service tracking
-
- Developed driver fee computation feature
-
- Developed the pickup point review feature of Transportation Management Service based on Spring framework and Alibaba Cloud (AWS-like) to support 2+ million users by using multithreading technique to shorten processing time by 50%
- Implemented Redis-based distributed locking, preventing duplicate task processing
- Built the driver delivery tracking microservice, implemented database sharding for 8M+ driver tracking records, optimizing data distribution and reducing traffic bottlenecks via RabbitMQ

Shanghai Xinyingjie Technology Co. Ltd (China Top 3 Archival Management Platform)

- Implemented full-text search for Archives Management System by integrating **Elasticsearch** with Canal real-time data sync and IK Chinese analyzer, reducing search time from 15 seconds to 800ms
-
- Built comprehensive workflow system using **RabbitMQ** for asynchronous task processing and **MongoDB** for storing complex application documents with nested structures, handling application submission, multi-level approval, and processing for 15+ service types (transcript translation, degree verification, archive transfer), processing 3,000+ applications monthly with 95% completion rate within SLA and zero message loss
-
- Architected unified payment module using Alipay SDK, WeChat Pay API, and RESTful web services to integrate 3 payment channels (Alipay, WeChat Pay, internal university platform), implementing payment order creation, callback handling, and transaction reconciliation with 99.9% success rate
-
-
- Built Video and Audio management system

- Imported EasyExcel
-
- Built key modules of 4 systems to support 110 universities and government in archival management industry
- Enhanced search efficiency by integrating **Elasticsearch** with real-time database synchronization using Canal
- Implemented Java-based multithreading to improve efficiency by 120% for bulk file processing
- Integrated Enterprise WeChat to systems, allowing users to manage archives and receive notifications.

Hangzhou Yunzhi Internet Technology Co. Ltd (Internet Cafe Platform Startup)

- Built **RESTful APIs** for e-commerce platform Zhuanba Mall using **Spring Boot**, implementing **Redis** caching for frequently accessed data that improved page load times by 40% across the shopping mall platform
- Developed internet cafe management system using **Java Spring Boot** and **MySQL (PostgreSQL-like)**, implementing **JWT** authentication and role-based access control supporting 500+ daily active users with 99.9% uptime
-
-
- Built **RESTful APIs** for e-commerce platform Zhuanba Mall using **Express.js**, implementing **Redis** caching for frequently accessed data that improved page load times by 40% across the shopping mall platform
- Developed internet cafe management system using **React.js, Node.js**, implementing **JWT** authentication and role-based access control supporting 500+ active users with 99.9% uptime
-
- Identified, documented, and tracked 1,500+ bugs in **JIRA**, improving product stability to 99.99%

Hangzhou Shunwang Technology Co. Ltd (China Top 1 Internet Cafe Platform)

- Automated Web UI testing for the Franchise Management Platform using **Python**, improving test efficiency by 80%
-
- Automated Web UI testing for the Franchise Management Platform using Selenium and **Python**, improving test efficiency by 80%.
- Identified Live Horse Esports Platform performance bottlenecks through **JMeter** load testing of 1000 concurrent users, improving user satisfaction by 150%
- Identified, documented, and tracked 1,500+ bugs in **JIRA**, improving product stability
- Set up test environments using Linux, Nginx, Tomcat, Microsoft SQL Server and Redis
- Collaborated with product managers, engineers, and operations to accelerate project delivery by 20%