



**Zhiwei Li** 29-year-old Male

Location : Guangzhou, Guangdong

Expected Position : Full Stack Engineer / Backend Engineer

Expected Location : Guangzhou

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## PROFILE

- 29-year-old male, Chinese citizen, resides in Guangzhou.
- Achieved top 300 in NOIP 2011, solved around 1000 algorithm problems online.
- Studied for one year at Beijing Forestry University before dropping out. Pursuing an associate degree through self-taught education, with five courses completed.
- Worked primarily at LeanCloud, Beijing Square Root, Beyondsoft (outsourced to DBS Bank), and Farben Information(outsourced to HSBC Bank).
- Accumulated 9.5 years of professional experience, including 7 years in corporate roles and 2.5 years as a freelancer.
- Specializes in 2 years of mobile (Android, iOS) engineering and 6 years of full-stack engineering (5 years backend, 1 year frontend), and 1 year in machine learning/big data.
- Familiar with Java, Spring, MySQL, Vue, HTML, Alibaba Cloud, AWS, Azure, and more.
- Native in Chinese, proficient in English (IELTS 6).
- Developed 10 open-source GitHub projects as a main developer, each with over 500 commits available at <https://github.com/lzwjava>.
- Detailed software portfolio available at <https://lzwjava.github.io/pages/portfolio>.

## EDUCATIONAL BACKGROUND



**Guangzhou Yuyan Middle School**

Science | High School

2010-09 to 2013-06

- ▶ • Ranked in the top 300 out of 100k students in the Guangzhou High School Entrance exam.
- Ranked in the top 300 in the 2011 Guangdong NOIP(National Olympiad in Informatics in Provinces).



**Beijing Forestry University 211**

Dropout | Digital Media Arts | Bachelor

2013-09 to 2014-07

- ▶ • Passed 13 courses, like Computer Introduction, Fundamentals of Programming, Programming Fundamentals Lab, College English, Advanced Mathematics, Principles and Techniques of Digital Imaging, Two-Dimensional Graphics Technology.
- Built a campus assistant Android application "Bjfu Assistant" that integrates the functions of checking grades, and alumni forums. It has been downloaded and used by thousands of users on campus. And I built an Android App for learning English by watching movie clips, and won the third prize in a hackathon.
- Ranked in the top 1 in my schools ACM/ICPC monthly training competition among around 100 top students in the university, including higher grade one.



**Guangdong University of Foreign Studies**

Computer Application | College Diploma

2022-10 to 2025-10

- ▶ • National Higher Education Self-study Examination. Passed 5 courses as of now, Introduction to Operating Systems, Introduction to Data Structures, Advanced Language Programming (I), English (I), Advanced Mathematics.
- Currently preparing for courses such as Computer Organization, Computer Network Technology, Database and Applications, Computer Application Technology, Linear Algebra, Basic Electronics, and Microcomputer and Interface Technology.

## WORK EXPERIENCE



### Not Applicable

Freelancer

2023-07 to Present

- Analyzed and reimplemented some core parts around 30 example projects about machine learning, from PyTorch, TensorFlow tutorials, Coursera online courses or other open-source projects. And got two course completion certificates from Coursera about Machine Learning Specialization and Deep Learning Specialization.
- Prepared for exams related to obtaining an associate degree, with a focus on subjects such as advanced mathematics, computer organization, linear algebra, etc. Listened to a lot of Japanese songs and watched a lot of Japanese TikTok videos to learn the language.
- Participated as a Full Stack Developer in an AI-powered story bot project using Claudes API for personalized stories. The bot supports prompt setting and includes a management page for configuration. Developed with Python, Flask, React, and Nginx, and deployed on AWS. Used Prometheus for monitoring, ELK stack for log management, and ChatGPT-4 for programming assistance.



### Shenzhen Farben Information Technology Co.

Backend Engineer

2022-11 to 2023-07

- Farben is a leading software technology service provider in China. HSBC Bank is one of the largest banking and financial services institutions in the world. PayMe is an HSBC mobile payment service catering to Hong Kong residents.
- Contracting through Farben, I was assigned to work for HSBC Bank and contributed to the PayMe project. I participated in the backend development for the Auto Top Up feature, which automatically tops up funds from the users credit or debit card when their balance falls below a certain amount. We monitored post-payment events from Azure EventHub and checked for top-ups whenever a user set up their auto top-up configuration. We used dedicated object-oriented programming to handle cases elegantly and applied aspect-oriented programming to audit logs for changes in the auto top-up table. Additionally, I assisted with the AWS migration by troubleshooting IAM and RDS configurations.
- We utilized a strong tech stack including Java, Spring, and Kafka, along with Azure, Azure DevOps, and AWS for cloud services and continuous integration.



### Beyondsoft Consulting Inc

Backend Engineer

2021-12 to 2022-11

- Beyondsoft Consulting is a leading business IT and consulting company. DBS Bank is the largest bank in Southeast Asia by assets and among the largest banks in Asia.
- Contracting with Beyondsoft, I was assigned to work for DBS Bank and contributed to DBS Client Connect and DBS DigiBank CN.
- In the DBS Client Connect project, I contributed to the development of the equity trading micro-service. My responsibilities included creating functionalities for equities display, customer display, pre-trade checks, and placing actual equity trade orders. We integrated Avaloq APIs to enhance the underlying infrastructure and improved the user experience by implementing an edit distance algorithm to refine stock code searches.
- In the DBS DigiBank CN project, I participated in backend development for various micro-services, including mutual funds management tasks such as subscribing to or redeeming mutual funds. I assisted with performance tests by analyzing logs from Pivotal Cloud Foundry to generate reports on the QPS of the micro-services. Additionally, I developed a tool to automate test generation using the Karate framework.
- We leveraged cloud technologies and modern frameworks, employing automation best practices with tools such as Java, Spring Cloud, Jira, Confluence, Jenkins, Pivotal Cloud Foundry, and Kibana, and utilizing BDD and TDD methodologies.



### Not Applicable

Freelancer

2020-01 to 2021-11

- Authored and published technical blogs to share knowledge online, improved English proficiency through engaging with Netflix and literature, and enhanced problem-solving skills by tackling around 500 algorithm

problems and participating in Codeforces competitions. Gained a little hands-on experience with big data and cloud-native technologies by exploring introductory tutorials and running examples for Spark, Hadoop, Kubernetes, and Docker.

- Completed various software projects as a freelancer, LED Sign Website Development, Enterprise WeChat Integration for ShowMeBug, Web Scraper for Trade Data Collection, eBook tool mathjax2mobi.
- LED Sign Website Development (lvchensign.com): Developed a website for an LED sign manufacturing company using Bootstrap, HTML and JavaScript. Implemented features for showcasing products. Optimized the website for SEO and integrated Google Analytics for tracking user behavior.
- Enterprise WeChat Integration for ShowMeBug: Contributed to the integration of ShowMeBug with Enterprise WeChat, enabling seamless access to technical interview tools within the Enterprise WeChat ecosystem. Utilized technologies like Ruby, Ruby On Rails, PostgreSQL and the WeChat SDK to create a smooth user experience for interviewers and candidates.
- Web Scraper for Trade Data Collection: Developed a web scraper using Python and Selenium to collect trade data for a non-woven fabric company. Automated data extraction and page navigation, processed and stored the data in a SQLite database, and generated reports for business analysis. Implemented error handling and logging to ensure the reliability and maintainability of the scraper.
- mathjax2mobi: a tool designed to convert HTML content with MathJax equations into eBook-friendly formats. By transforming LaTeX-based MathJax equations into SVG images, it ensures compatibility with eBook formats like MOBI. This tool facilitates the seamless integration of complex mathematical content into eBooks, making it ideal for scientific and educational publications. Technologies used include Python, BeautifulSoup, and Selenium.



### Beijing Square Root Inc

Founder & Full Stack Engineer

2016-07 to 2019-12

- Beijing Square Root Inc. ran two businesses in 3.5 years. From July 2016 to September 2017, it rolled out and operated Fun Live, a knowledge live broadcast platform. From January 2018 to December 2019, it transformed into a software consulting business.
- With Fun Live, users can participate in various knowledge lectures such as programming or design here. Users can pay some fees to attend the live or reward the lecturer. The lecturer uses the OBS tool to push live stream to the server. Users can participate in the lecture in real time or see the playback later. It integrates seamlessly with the WeChat platform like the notifications functionality. By hosting around 80 lectures, it gained around 30000 users and millions of page views. I was responsible for most software development and marketing. We leveraged cloud technologies and modern frameworks like PHP, Vue, HTML, CodeIgniter, MySQL, Redis, LeanCloud, Alibaba Cloud and WeChat SDK.
- During the software consulting business period, we did 50 small software projects for customers, including websites, games, and apps. The revenue was around 3 million RMB and the profit was around 700 thousand RMB. I was responsible for project negotiation, team management, and some software development. The projects I contributed to are shown below.
- MianbaoLive: I led a comprehensive backend refactoring effort for MianbaoLive, a one-stop content monetization and social economy platform. This involved optimizing the performance, stability, and user experience of the entire tech stack. Before refactoring, we used ThinkPHP, Node.js, and Go. I worked with old APIs and rewrote everything in Laravel to handle server-side development. The platform included modules for courses, users, content, user attendance, payments, and distribution sales. It partnered with Himalaya, a top audio platform in China, and I helped synchronize the contents between the platforms.
- Jiangsu TVs Super Brain Program WeChat Mini Program: As the Full Stack Engineer for the Super Brain program's WeChat Mini Program, I was responsible for all backend development and half of the frontend development. This WeChat Mini Program engaged viewers with interactive puzzle games, enabling them to compete and rank to become the "Super Brain." Using the WeChat Mini Program framework and Wepy (Vue.js), I created various game components and ranking pages. I integrated RESTful APIs to fetch game data and user information. Additionally, I performed extensive performance tuning to ensure the system could handle high concurrency, leveraging caching technologies such as Redis to improve data retrieval speed and reduce server load, especially on the ranking pages.

- Chongding Conference: I spearheaded the full-stack engineering for Chongding Conference, a mobile trivia app in China resembling HQ Trivia. My responsibilities included designing and implementing services and APIs to handle live trivia events, user management, and real-time question and answer sessions. The project utilized Java and Spring for the backend, with Redis and Kafka for caching and message queuing, and Zookeeper for service coordination, Socket.IO for real-time barrages. On the frontend, I developed the admin panel to help operators control the game. The app supported live streaming, real-time interaction, and robust performance under high traffic conditions, making it a popular and engaging platform for users. Additionally, I contributed to the technical discussion for using SEI (Supplemental Enhancement Information) to synchronize the timestamp of the live streaming of the host with the popup or hidden behavior of the trivia game.



### **Beijing Dami Entertainment Co.**

Cofounder & Full Stack Engineer

2015-11 to 2016-06

- Beijing Dami Entertainment Co. was a company founded by 6 Internet enthusiasts, including me. We launched and operated the platform CodeReview, a professional platform for code review, communication, and sharing. It gained around 3000 users.
- The platform has functionalities including user management, code submission and review processes, notification systems, payment integration, and event and workshop management. Engineers can submit their code for expert review to improve its quality. Experts receive fees for their reviews. The platform also offers workshops and events open to users.
- I was responsible for the code development of the backend and half of the frontend. We utilized a strong tech stack including PHP, Vue, CodeIgniter, Alibaba Cloud, and Ping++.



### **Bookmarks (Beijing) Information Technology Co., Ltd**

Software Engineer

2014-07 to 2015-11

- Delicious Bookmarks has a leading cloud computing provider in China, LeanCloud. It offers a complete set of cloud services including object storage, file storage, web hosting, container, instant messaging, push notification, SMS, and game backend. The company serves hundreds of thousands of developer users.
- I participated in the development of LeanCloud Objective-C SDK and Java SDK. I was responsible for the development of LeanChat iOS client and Android client, a chat application set up to demonstrate the instant messaging SDK. Additionally, I was responsible for some frontend projects.
- We employed a robust tech stack, leveraging modern tools such as iOS SDK, Android SDK, Cocoapods, Xcode, Android Studio, and the Angular framework.

## **PROJECTS**

### **Corporate Projects**

Full Stack Engineer

2014-07 to Present

- AI-powered Story Bot (2024.5 - 2024.7) Participated in the full stack development. Used tech stacks like Python, Flask, React, AWS, and Claude.
- PayMe from HSBC (2022.11 - 2023.07) Participated in the backend development of the auto top-up feature and cloud migration. Used tech stacks like Java, Spring Cloud, Azure, and AWS.
- DBS Digibank CN (2022.7 - 2022.11) Participated in the backend development of mutual funds. Used tech stacks like Java, Spring Cloud, and Pivotal Cloud Foundry.
- DBS Client Connect (2021.12 - 2022.6) Participated in the backend development of equity trading. Used tech stacks like Java, Spring Cloud, and Pivotal Cloud Foundry.
- ShowMeBug (2021.7 - 2021.9) Responsible for the integration between the platform and Enterprise WeChat, including login and easy interview entrance. Used tech stacks like Ruby on Rails, PostgreSQL, and WeChat SDK.
- Square Root Inc Projects (2018.1 - 2019.12) Completed 50 miscellaneous projects including websites, games, apps, and WeChat mini programs. Responsible for team management, contract negotiation, project management, client communications, and some software development.
- Super Brain TV Program WeChat Mini Program (2018.2 - 2018.3) Responsible for the backend and frontend development. Used tech stacks like Java, Spring, JavaScript, HTML, and AliCloud.

- Chongding Conference (2017.9 - 2018.1) Responsible for some backend development and frontend development of the admin panel for a live-streaming trivia app. Used tech stacks like Java, Spring, WebSocket, and Netty.
  - Mianbao Live (2017.9 - 2018.1) Responsible for refactoring the backend of a one-stop content monetization platform. Used tech stacks like PHP, TypeScript, Laravel, and Go.
  - Fun Live (2016.6 - 2017.9) Responsible for most code development of a knowledge live broadcast platform. Used tech stacks like PHP, JavaScript, HTML, AliCloud, and RTMP Streaming.
  - LeanCloud SDK and LeanChat (2014.07 - 2015.10) Responsible for some Objective-C and Java SDK development, and all development of their demo app LeanChat.

**Open Source & Blog & Codeforces**

### Owner

2013-09 to Present

- Please explore my open-source projects, both corporate initiatives I've founded and personal side projects, on GitHub: <https://github.com/lzwjava>.
  - algorithm-solutions, the solutions to algorithm problems, 2466 commits, Java
  - lzwjava.github.io, my blog, 500 commits, English & Chinese
  - live-server, the backend of a knowledge live broadcast platform, 660 commits, PHP
  - live-mobile-web, the mobile frontend of a knowledge live broadcast platform, 528 commits, Vue & JavaScript
  - live-web, the desktop frontend of a knowledge live broadcast platform, 140 commits, Vue
  - live-wxapp, the WeChat Miniprogram of a knowledge live broadcast platform, 63 commits, JavaScript
  - code-review-server, the backend of a professional platform for code review, 275 commits, PHP
  - code-review-web, the frontend of a professional platform for code review, 302 commits, Vue & JavaScript
  - weimg-server, the backend of an image community, 35 commits, PHP
  - weimg-ios, an iOS application of an image community, 77 commits, Objective-C
  - leanchat-ios, an iOS chat application, 556 commits, Objective-C
  - leanchat-android, an Android chat application, 412 commits, Java
  - curiosity-courses, a programming course, 215 commits, Chinese
  - LZAlbum, an iOS simple application like WeChat moments, 47 commits, Objective-C
  - TabsKiller, a Chrome plugin that helps to close tabs in the browser, 19 commits, JavaScript
  - Reveal-In-GitHub, an Xcode plugin, 57 commits, Objective-C
  - LvchenSign, a website of an advertising signage company, 40 commits, JavaScript
  - feynman-lectures-mobi, a tool to convert LaTeX to SVG to create mobi ebook, 47 commits, Python
  - flower-recognition, a flower recognition Android application, 37 commits, Java
  - Creak, a simple HTML Parser, 49 commits, Swift

## Others

## Skills

I have gained a lot of skills since I started programming in 2008. In terms of usage time, the high-level description is as follows. It is different from working experience. I use it to show relative familiarity with my skills.

- 5 or more years of using experience: Chinese, English, Writing, Java, Algorithm, Test-driven Development, Cloud Computing, DevOps, Backend Development
  - 3 to 4 years of using experience: Cantonese, iOS Development, Android Development
  - 1 to 2 years of using experience: Product Management, Machine Learning, Frontend Development
  - less than 1 year of using experience: Japanese

## Tools

Below are detailed tools that help me to accumulate the above skills, plus other interesting tools. I am still using some of them and can learn for a few days to use the rest of them again.

- Natural Language: English, Chinese, Cantonese, Hakka, Japanese

- Operating System: Linux, Windows, MacOS, Android, iOS, OpenWRT
- Language: PHP, Java, Objective-C, Swift, Ruby, HTML, C, C++, JavaScript, Lisp, Clojure, TypeScript, Node.js, Go, Python, Pascal
- Domain-specific language: JSON, CSS, SQL, NoSQL, Kusto Query Language, Kibana Query Language
- Database: MySQL, SQLite, PostgreSQL, Microsoft SQL Server, Amazon RDS, MongoDB
- Frontend: Vue, React, Angular, jQuery, Hexo, Jekyll, Stylus, Sass
- Framework: RTMP streaming, HTTP/IP, Spring, Spring Boot, Hibernate, Netty
- Big Data: Redis, Kafka, Spark, Flink, ZooKeeper
- Math: Calculus, Linear Algebra, Discrete mathematics, Latex
- Development: NPM, Webpack, Git, HomeBrew, Gradle, Maven, Xcode, VSCode, Sketch, Powershell, IntelliJ IDEA, Cocopods, Android Studio, WordPress, ChatGPT
- DevOps: Travis CI, GitHub Actions, Jenkins, SonarQube, Prometheus, Elasticsearch, Logstash, Kibana, Nginx, Docker, Kubernetes, PM2
- Machine Learning: TensorFlow, PyTorch, Theano, Anaconda, Jupyter Notebook, CUDA, Numpy, Pandas
- Cloud: GitHub, GitLab, Jira, Confluence, Digital Ocean, Vultr, AWS, Azure, Google Cloud Platform, Linode, Alibaba Cloud, Qiniu Cloud, Tencent Cloud, LeanCloud, Firebase, Pivotal Cloud Foundry, Cloudflare, GoDaddy, Agora
- Large Language Models: OpenAI, Claude, MiniMax, Amazon Bedrock
- Linux: nmap, grep, awk, ffmpeg, htop, df, lsof, strace, tcpdump, iostat, iptables, rsync, journalctl, systemctl, curl, tmux, traceroute, emacs, diff
- Test: Postman, Selenium, Karate, JUnit, Mockito, Apache JMeter, Apache ab

## Domain Knowledge

- Industry Knowledge: Banking and Payments, Education and E-learning Platforms, Social Media and Content Platforms, User and Account Management, Notification Systems, Data and Analytics, Mobile Applications, Payment Systems, Transaction Management, Social Media Integration, Video Management, Reward Systems, Live View Tracking, Application Management, Mutual Funds and Equity Trading, Browser-Based Programming Environments.
- Computer Science Fundamentals: Advanced Mathematics, Computer Organization, Operating Systems, Computer Network Technology, Database and Applications, Computer Application Technology, Data Structures and Algorithms, Microcomputer and Interface Technology, Compiler Design and Construction, Information Retrieval, Natural Language Processing, Data Mining, Image Processing.
- Technology and Development: Multilingual Communication, Cross-Platform Development, Full-Stack Programming, Database Management, Machine Learning and Big Data, Mathematical Proficiency, Development Tools, Machine Learning Implementation, Advanced Linux Usage, Testing and Quality Assurance, API Integration, Open Source Contributions, Technical Writing and Blogging, Cloud Computing Services, Distributed Systems, High Performance Optimization, Realtime Application, RTMP Streaming, Continuous Integration/Continuous Deployment (CI/CD), Containerization and Orchestration, Network Security, Agile Methodologies, Software Architecture, DevOps Practices, Cloud-Native Applications, API Development, Version Control Systems, Serverless Computing, Performance Monitoring, Data Engineering, Security Best Practices, Software Development Lifecycle (SDLC), Technical Mentoring, Project Management.

## Certificates

- Beijing Forestry University Dropout Certificate
- China Higher Education Official Report (Bachelor Education, Dropout Status)
- IELTS Academic, Score 6
- Machine Learning Specialization Course Completion Certificate, provided by DeepLearning.AI and Standford University
- Deep Learning Specialization Course Completion Certificate, provided by DeepLearning.AI
- Developing on AWS, provided by AWS Training

## Links

- GitHub:<https://github.com/lzwjava>
- Blog:<https://lzwjava.github.io>
- Codeforces:<https://codeforces.com/profile/lzwjava>
- UVa Online Judge:<https://uhunt.onlinejudge.org/id/113519>
- LinkedIn:<https://www.linkedin.com/in/lzwjava>
- Kaggle: <https://www.kaggle.com/lzwjava>
- Portfolio: <https://lzwjava.github.io/pages/portfolio>