Zhiwei Li 29-year-old Male

Location : Guangzhou, Guangdong
Expected Position : Full Stack Engineer / Backend Engineer
Expected Location : Guangzhou

Phone   13261630925   Email   lzwjava@gmail.com   Wechat   lzwjava

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   2010-09 to 2013-06
Science | High School

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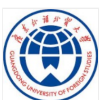- Ranked in the top 300 in the 2011 Guangdong NOIP(National Olympiad in Informatics in Provinces).

Beijing Forestry University *211*   2013-09 to 2014-07
Dropout | Digital Media Arts | Bachelor

- 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   2022-10 to 2025-10
Computer Application | College Diploma

- 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, assigned to work for HSBC Bank and contributed to the PayMe project. 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. Monitored post-payment events from Azure EventHub and checked for top-ups whenever a user set up their auto top-up configuration. 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.
- Actively contributed to cloud migration following participation in the companys AWS training. Refactored APIs to utilize request header-based routing, ensured secure access and database configurations, and participated in deploying microservices to the new cloud infrastructure.
- 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, assigned to work for DBS Bank and contributed to DBS Client Connect and DBS DigiBank CN projects.
- In the DBS Client Connect project, contributed to the development of the equity trading microservice. Responsibilities included creating functionalities for equities display, customer display, pre-trade checks, and placing actual equity trade orders. 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, actively contributed to the development of several microservices handling mutual funds management, structured investment products, investment portfolios, and transaction lists. Assisted with performance tests by analyzing logs from Pivotal Cloud Foundry to generate reports on the QPS of the microservices. Developed a tool to automate test generation for the testing tool Karate, streamlining the testing process and improving test coverage.
- 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

- 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.
- 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.
- 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. 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 could participate in various knowledge lectures such as programming or design. Users could pay fees to attend live sessions or reward lecturers. The lecturer used the OBS tool to push live streams to the server. Users could participate in the lecture in real-time or see the playback later. The platform integrated seamlessly with WeChat for notifications. Hosted around 80 lectures, gained 30,000 users and millions of page views. Responsible for most software development and marketing, leveraging PHP, Vue, HTML, CodeIgniter, MySQL, Redis, LeanCloud, Alibaba Cloud, and WeChat SDK.
- During the software consulting business period, completed 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. Responsible for project negotiation, team management, and some software development. Notable projects are shown below.
- MianbaoLive: Led a comprehensive backend refactoring effort for MianbaoLive, a one-stop content monetization and social economy platform. Optimized the performance, stability, and user experience of the entire tech stack. Previously used ThinkPHP, Node.js, and Go, and rewrote everything in Laravel for server-side development. The platform included modules for courses, users, content, user attendance, payments, and distribution sales. Partnered with Himalaya, a top audio platform in China, and synchronized content between the platforms.
- Jiangsu TVs Super Brain Program WeChat Mini Program: Responsible for all backend development and half of the frontend development for the Super Brain program's WeChat Mini Program. Engaged viewers with interactive puzzle games, enabling them to compete and rank to become the "Super Brain." Used the WeChat Mini Program framework and Wepy (Vue.js) to create game components and ranking pages. Integrated RESTful APIs to fetch game data and user information. Performed extensive performance tuning to ensure the system could handle high concurrency, leveraging caching technologies such as Redis.
- Chongding Conference: Spearheaded full-stack engineering for Chongding Conference, a mobile trivia app in China resembling HQ Trivia. Designed and implemented services and APIs to handle live trivia events, user management, and real-time question and answer sessions. Utilized Java and Spring for the backend, with Redis and Kafka for caching and message queuing, Zookeeper for service coordination, and Socket.IO for real-time

interactions. 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. Contributed to technical discussions for using SEI (Supplemental Enhancement Information) to synchronize the timestamp of the live streaming with the trivia game interactions.

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. Launched and operated the platform CodeReview, a professional platform for code review, communication, and sharing. Gained around 3000 users.
- The platform included functionalities such as user management, code submission and review processes, notification systems, payment integration, and event and workshop management. Engineers could submit their code for expert review to improve its quality, and experts received fees for their reviews. The platform also offered workshops and events open to users.
- Responsible for the development of the backend and half of the frontend. 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 is a leading cloud computing provider in China, known as LeanCloud. It offers a complete set of cloud services including object storage, file storage, web hosting, containers, instant messaging, push notifications, SMS, and game backends. The company serves hundreds of thousands of developer users.
- Participated in the development of LeanCloud Objective-C SDK and Java SDK. Responsible for the development of LeanChat iOS client and Android client, a chat application designed to demonstrate the instant messaging SDK. Additionally, worked on various frontend projects.
- 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 Ive 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 brower, 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.

Selected Blog Posts

Below is a selection of my blog posts, covering personal growth stories, startup journeys, English learning, programming, geek projects, and more. Please visit lzwjava.github.io and search the titles to check them out.

- Building a Scalable Application on Azure
- Comprehensive Guide to Spring Framework
- Build an AI-Powered Story Bot with Flask, React, and ELK
- End-to-End Trace ID Implementation
- Deploying with Pivotal Cloud Foundry
- EC2 Instance Connection Issues
- The Wisdom of Learning
- Zen and the Art of Machine Learning
- How to Build a Computer
- Introduction to Web Programming
- Practical: Scraping Website Content

- Mastering English: On and Off the Job
- The Journey of Learning English
- How to Improve English Proficiency with Large Amounts of Input
- Reduce Myopia Naturally with Glasses 150 Degrees Lower
- Practical: Turning Feynmans Lectures on Physics Webpages into an eBook
- Interview with Zhiwei: From a Loss of 450,000 to Revenue of 2,000,000
- My Trip to the United States: First Impressions of Silicon Valley
- Lieyunwang: Post-95 Entrepreneur Founded Knowledge Live Streaming Platform QuZhibo
- Porting FFmpeg to Android
- A Deep Dive into Custom Drawing in Android

Certificates

- Beijing Forestry University Dropout Certificate
- China Higher Education Official Report (Bachelor Education, Dropout Status)
- IELTS Academics, 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