Zhiwei Li 28-year-old   Male

Location : Guangzhou, Guangdong
Expected Position : Machine Learning Engineer / Data Enginner / NLP Engineer
Expected Location : Guangzhou / Shenzhen

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PROFILE

- I am an engineer, scientist, startup founder, blogger, and lifelong learner. My mission is to do experiments for humans.
- I had tracks of excellence in my 28 years of life. I ranked in the top 300 among the 100k students in Guangzhou High School Entrance Exam. And I ranked in the top 300 in NOIP(National Olympiad in Informatics in Provinces) in Guangdong Provinces in my high school. After my first year at Beijing Forestry University(Top 100 of 3000 universities in China), I dropped out to work in a startup and then created my one. Over three years in the startup industry, I constructed an engineering live broadcast platform that served 30,000 users and led a team to complete 50 small software projects around a year, generating an annual revenue of 3 million CNY. In my last job, I worked as a contractor for one of the largest banking and financial services institutions in the world, HSBC Bank.
- Regarding my technical experience, I have accumulated approximately nine years of software engineering experience, working across different domains such as iOS, Android, frontend, and backend development. Additionally, I dedicated around one year to exploring the field of machine learning, which I pursued during my leisure time and freelance periods. In addition, I have achieved a proficiency in English, having obtained a score of 6 on the IELTS exam.
- Because of my benevolent and honest personality, I am an easy-going, reliable, and joyful guy who gets along with people well.

EDUCATIONAL BACKGROUND

Beijing Forestry University *211*   2013-09 to 2014-07
Computer Science | Bachelor

- 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.
- 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 school's ACM/ICPC(International Collegiate Programming Contest) monthly training competition among around 100 top students in the university, including higher grade one.

Guangzhou Yuyan Middle School   2010-09 to 2013-06
Science | High School

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

WORK EXPERIENCE

Freelancer Inc
Freelancer & Machine Learning Engineer   2023-07 to Present

- Attended Stanford CS231n course, "Deep Learning for Computer Vision." Completed some books, including "Programming PyTorch for Deep Learning" and "Neural Networks and Deep Learning."

- Devoted time to review approximately 20 influential research papers within the field, covering topics such as transformers, dropout techniques, recurrent neural networks, convolutional neural networks, seq2seq models, and LSTMs.
- Implemented and trained neural networks from scratch using both NumPy and PyTorch frameworks, with a focus on applications like handwritten digit recognition, visual object recognition, large language models, artistic style transfer.
- Built a Deep Learning computer with Nvidia GPU and trained neural networks with it.
- Please check the below section of machine learning projects.

Farben & HSBC Bank
Full Stack Engineer   2022-11 to 2023-07

- HSBC Bank is one of the largest banking and financial services institutions in the world. PayMe, an HSBC mobile payment service catering to Hong Kong residents with local phone numbers and banking services, boasted around 2.9 million active users as of November 2022.
- I joined HSBC Bank as a contractor via Farben, contributing to the PayMe project. I did the microservice development for features like Auto Top Up.
- 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 & DBS Bank
Full Stack Engineer   2021-12 to 2022-11

- DBS Bank is a Singaporean multinational banking and financial services corporation.
- Contracting with Beyondsoft, I joined DBS Bank and contributed to DBS Client Connect by developing the equity trading micro-service, and to DBS DigiBank CN by developing several micro-services, including those for mutual funds.
- 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.

Freelancer Inc
Freelancer & Engineer   2020-01 to 2021-11

- Did some software projects as a freelancer. Projects consist of a website about a company doing the LED Sign, some modules of an online technical interview platform, etc. Used technologies like Ruby, Ruby On Rails, ElasticSearch, Docker, Netty, etc.
- Wrote technical blogs and shared them online. Learned English by watching Netflix and reading books. Solved some algorithm problems and participated in online algorithm competitions in Codeforces.

Beijing Square Root Inc
CEO & Engineer   2016-07 to 2019-12

- From January 2018 to December 2019, I led a team of around 20 full-time or part-time employees to complete nearly 50 small software projects for customers. The types of projects include small programs, apps, websites, and games. The revenue exceeded 3 million RMB and the profit exceeded 700 thousand RMB. I am responsible for project negotiation, project management, and some software development in the team.
- From July 2016 to September 2017, Fun Live, a live broadcast platform for software engineering lectures, was launched. In one year, nearly 30,000 users were obtained. Started my own business for the first time, and the marketing, and software development were mainly done by myself.
- During these years, I used technologies like PHP, Java, Spring, Vue, HTML, Laravel, MySQL, Redis, WebSocket, Aliyun, Spring Boot, MiniProgram, WeChat SDK, and DevOps tools, etc.

LeanCloud
Software Engineer   2014-07 to 2015-11

- LeanCloud is a leading domestic cloud computing provider. The company serves hundreds of thousands of developer users and has received IDG investment.
- Participated in the development of LeanCloud iOS SDK and Android SDK. Responsible for some Angular frontend projects.
- Responsible for the development of LeanChat iOS client and Android client. This is a chat application set up to demonstrate the communication SDK, with functions such as single chat, group chat, nearby people, etc.

PROJECTS

Machine Learning Projects   Owner   2023-01 to Present

- Some experimental projects which are learned from other open source projects. Carefully analyzed and wrote code from scratch by myself. Please check out https://github.com/lzwjava/neural-networks-and-zhiwei-learning.
- Mnist Numpy, a simple neural network to recongnize the handwritten digits. Just used Numpy and manually calculate the gradients.
- Mnist Torch, a simple neural network to recognize the handwritten digits using pytorch framework.
- Nanogpt, a simple and fast implementation for training and finetuning medium-sized GPTs.
- Makemore, an autoregressive character-level language model for making more text.
- Fast Neural Style, a pytorch implementation of an algorithm for artistic style transfer. The algorithm can be used to mix the content of an image with the style of another image.
- ImageNet, this implements training of popular model architectures, such as ResNet, AlexNet, and VGG on the ImageNet dataset.
- Time Sequence Prediction, a pytorch project which use two LSTMCell units to learn some sine wave signals starting at different phases.

Corporate Projects   Full Stack Engineer   2014-07 to Present

- PayMe from HSBC. Participated in the backend development of auto top-up feature and cloud migration. Used tech stacks like Java, Spring Cloud, Azure and AWS. From 2022.11 to 2023.07.
- DBS Digibank CN. Participated in the backend development of mutual funds. Used tech stacks like Java, Spring Cloud, and Pivotal Cloud Foundry. From 2022.7 to 2022.11.
- DBS Client Connect. Participated in the backend development of equities trading. Used tech stacks like Java, Spring Cloud and Pivotal Cloud Foundry. From 2021.12 to 2022.6.
- ShowMeBug, an online interview platform. Responsible for the integration between the platform and the Enterprise WeChat, like login, and easy interview entrance. Used tech stacks like Ruby on Rails, PostgreSQL and WeChat SDK. From 2021.7 to 2021.9.
- The 50 miscellaneous projects of Square Root Inc, including websites, games, apps, WeChat mini programs and HTML5. My software consultant company. Responsible for team management, contract negotiation, project management, and client communications. From 2018.1 to 2019.12.
- The WeChat Mini program for Super Brain TV Program in China. Responsible for the backend and frontend development. Used tech stacks like Java, Spring, Javascript, HTML and AliCloud. From 2018.2 to 2018.3.
- A live-streaming trivia app. Responsible for the half backend development and admin panel frontend development of the first version. Used tech stacks like Java, Spring, WebSocket and Netty. From 2017.9 to 2018.1.
- Fun Live, a simple Coursera platform in China. My startup project. Responsible for all code development. Used tech stacks like PHP, Javascript, HTML, AliCloud and RTMP Streaming. From 2016.6 to 2017.9.
- LeanCloud Mobile SDK and LeanChat. Responsible for some iOS and Android SDK development, and all development of their demo app LeanChat. From 2014.07 to 2015.10.

Open Source & Blog & Codeforces   Owner   2013-09 to Present

- Some machine learing practice projects, neural networks to recognize hand written digits and nanoGPT, https://github.com/lzwjava/neural-networks-and-zhiwei-learning
- An example microservice project with unit tests, about users, users' roles, and their relationship, https://github.com/lzwjava/user-service

- An iOS chat application that shows the functionality of LeanCloud Chat SDK, https://github.com/lzwjava/leanchat-ios
- An Android chat application that shows the functionality of LeanCloud Chat SDK, https://github.com/lzwjava/leanchat-android
- A course to teach basic programming and provide some beginner guide with several programming languages like Rust, Python, Java, and C, and discuss the topics like cloud computing and machine learning, https://github.com/lzwjava/curiosity-courses
- A Simple and Elegant HTML Parser written in Swift, https://github.com/lzwjava/Creak
- An Xcode plugin lets you jump to any GitHub repo's history, blame, and PRs pages with one shortcut. https://github.com/lzwjava/Reveal-In-GitHub
- Wrote Chinese and English articles (20 English, and 50 Chinese) on my blog site. https://lzwjava.github.io
- Solved 399 algorithm problems on Codeforces, https://codeforces.com/profile/lzwjava
- Solved 568 problems on Uva Online Judge, https://uhunt.onlinejudge.org/id/113519
- Around 50 Short Videos about early childhood education, language study, aerial photography, learning skills, and ChatGPT. Please check the Platform Douyin, https://v.douyin.com/iKAw9Y or Youtube https://www.youtube.com/channel/UC-jqwnFwWOS4ydgTsQR-9ZQ

Others

Skills

I have gained a lot of skills since I started programming in 2008. Let's look at my skills from a high level.

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

Tools

Besides skills, let's look at the tools I have used. They 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, Symbian, Apple tvOS, Fire OS
- 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
- Framework & Database: jQuery, Hexo, Jekyll, React, MongoDB, PostgreSQL, Microsoft SQL Server, Stylus, Sass, MySQL, Redis, Kafka, RTMP streaming, HTTP/IP, Vue, Spring, Hibernate, Netty
- Math: Calculus, Linear Algebra, Latex
- Development Tools: NPM, Webpack, Git, Travis CI, HomeBrew, Gradle, Maven, Xcode, VSCode, Sketch, Powershell, IntelliJ IDEA, Cocopods, Android Studio, Jenkins, SonarQube, WordPress, Nginx, ChatGPT, Elasticsearch, Docker
- Machine Learning: TensorFlow, PyTorch, Theano, Anaconda, Jupyter Notebook, CUDA
- Cloud Tools: GitHub, GitLab, Jira, Confluence, Cloudflare, Digital Ocean, Vultr, AWS, Azure, Alibaba Cloud, Pivotal Cloud Foundry
- Test: Postman, Selenium, Karate, JUnit, Mockito, Apache JMeter, Apache ab
- Others: FFmpeg, Spark, Proxy Tools

Articles

- To the 10 Yo's Me: How to Become an Information Genius:https://lzwjava.github.io/10yo
- The Next Generation Should Experience All of These Wonderful Things and Places:https://lzwjava.github.io/things
- I Finally Understand How Neural Network Works:https://lzwjava.github.io/neural-network
- Zen and the Art of Machine Learning:https://lzwjava.github.io/zen-neural
- The 10x AGI Information World:https://lzwjava.github.io/agi
- How I Wear the Eyeglasses With 150 Degrees Less Than the Actual to Reduce Myopia:https://lzwjava.github.io/eyes

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
- Youtube:https://www.youtube.com/channel/UC-jqwnFwWOS4ydgTsQR-9ZQ