







# YI TIAN (LEO) LIU

 leoyitianliu  
 +1 619 627 1990  
 leoyitianliu@gmail.com

 leoyitianliu.com  
 github.com/illidan333  
 @leoyitianliu

## SUMMARY

Experienced Site Reliability Engineer and Full-Stack Developer with 10+ years in building and operating large-scale, distributed systems. Passionate about improving reliability, scalability, and developer velocity through automation, object-oriented design, and deep infrastructure knowledge—across both cloud and on-premise environments.

Distributed Systems & Scalability

Kubernetes & Terraform

Python / Go / Java

CI/CD Automation

Incident Response & Observability

## EXPERIENCE

Nov2024-Now

### Site Reliability Engineer

Shein, San Diego, California, United States

Ensure the reliability and performance of SHEIN's large-scale global infrastructure, supporting over 50,000+ servers, petabyte-level data systems, and millions of requests daily.

- Designed and implemented object-oriented applications to manage and optimize complex infrastructure workflows and rule sets.
- Developed automation tools for disk and network operations, improving operational efficiency and reducing manual intervention by over 70% across thousands of nodes.
- Enhanced system reliability and availability, achieving 99.998% uptime through proactive on-call response, system testing, chaos drills, and resilience engineering.
- Led incident management for high-severity production events, achieving SLA goals of MTTA < 1 min, MTTR < 5 min, and MTTR < 10 min, minimizing user impact and service disruption.
- Managed large-scale Kubernetes clusters with thousands of nodes, ensuring seamless deployments, auto-scaling, version upgrades, and resource allocation with zero downtime.
- Operated critical infrastructure components (MySQL, Redis, Kafka) under high throughput, optimizing performance and achieving 50% reduction in average query latency.
- Implemented a comprehensive monitoring and alerting stack, enabling real-time observability and early detection, resulting in a 40% reduction in false positives.
- Scaled infrastructure on Microsoft Azure across multiple global regions, achieving 30% cost optimization while maintaining system performance and availability.
- Performed advanced system operations across Unix/Linux servers, using shell scripting and CLI tools to manage infrastructure at scale.

#### Project: NSG Management App (OOD-based)

Designed and implemented an object-oriented application to manage Azure NSG (Network Security Group) rules across global infrastructure. The system scans existing NSG configurations, evaluates new rule requests, and suggests the most optimal changes with minimal redundancy. Significantly improved access control efficiency and reduced manual errors.

#### Project: Automated Large-Scale Disk Replacement Application

Built a scalable automation framework to evaluate and reallocate disk resources across 50,000+ servers and saved the organization 80K USD per month.

- Dec2024–Aug2024 **Build and Release Engineer** **Tencent - Timbre Games, Vancouver, British Columbia, Canada**
- Automated game build tasks on TeamCity, enhancing efficiency and reliability in build processes.
  - Designed and implemented an auto-scaling build farm, integrating Perforce, TeamCity, and AWS (EC2, EBS) to dynamically scale build agents based on demand.
  - Reduced build queue time by 80%, significantly improving build turnaround time and developer productivity.
  - Configured seamless integration among key components to optimize workflows and resource utilization.
- Projects: Auto-scaling build farm*  
*Configuring the integration among different components like Perforce, Teamcity and AWS (EC2 and EBS) to allow auto scaling build agents on demand. Reduced build queue time by 80%*
- Jan2022–Dec2023 **DevOps Engineer** **Offworld Industries, New Westminster, British Columbia, Canada**
- Delivered a web application called *Robomerge* to boost development productivity by 90%
  - Improved website and game web service reliability by 40% through enhanced development and operations.
  - Saved hundreds of team hours monthly by integrating an open-source utility into Unreal Engine workflows for streamlined conflict resolution.
- Projects: Robomerge*  
*Integrated an open-source utility in the Unreal Engine to the team's process to automatically merge code branches and warn people on Slack about any conflicts. It saved the game team hundreds of hours every month to deal with merge conflicts*
- Oct2019–Jan2022 **Site Reliability Developer** **Readymode, Vancouver, British Columbia, Canada**
- Automated infrastructure provisioning with Python, Ansible, and AutoIT, reducing setup time by 80% and saving 100+ engineering hours weekly.
  - Built a deployment tool to help the company to increase system reliability by 200%
  - Redesigned the Committee deployment tool, boosting system reliability by 200% and improving visibility, flexibility, and rollback capabilities.
- Project: Infrastructure Provisioning Automation*  
*The sale team was doing too well, so our customers grew too rapidly. We needed more servers. We are asked to manually install OS and software dependencies repeatedly to keep up with our growth. I fully committed to the task assigned, but I learn how to automate the process whenever I have time. After a while, I managed make the process 80% faster by automating with Python, Ansible and AutoIT.*
- Project: Committee II*  
*As the number of our servers grow rapidly, code deployment became very unreliable. Things break often. We need to efficiently and reliably deploy the code with the flexibility on who gets what version. I rewrote our code deployment tool called "Committee". It was faster and kept records in the database. The new deployment tool was faster and more reliable with visibility, flexibility and easy to rollback.*
- Jul2019–Oct2019 **Software Development Engineer** **Volkswagen - PayByPhone, Vancouver, British Columbia, Canada**
- Improved a .NET application a bit with test-drive development in C#
  - Expanded the functionality of an API service by Integrating AWS web services
  - Enhanced some AWS cloud infrastructure orchestration with terraform
- Project: Parking Patroller software*  
*Developed an application to help the Patroller to check if someone has paid for parking Providing parking info like grace period and time parked and time to expire Giving tickets to parking violators*

Jan2016 – Jul2019	<b>Intermediate Software Development Engineer</b>	XenCALL, Vancouver, British Columbia, Canada
	<ul style="list-style-type: none"> <li>- Led a team to build a sales pipeline system to help users to grow their sales by 200%</li> <li>- Led a team to create a gamification system to train 100k+ users to learn software features</li> <li>- Led a team to create an advance search system to improve lead info search speed by 70+ %</li> <li>- Built a licensing system to help the company to collect 30+ thousands dollars missing revenue</li> <li>- Created a system to track tech support agents stat to reduce management workload by 80%</li> </ul>	
	<i>Project: Gamification Training System</i> Led a team to create a gamified training system with quests for learning complex software features. Collected user data for troubleshooting and assessment. Accelerated user onboarding and improved training engagement.	
	<i>Project: Sales Pipeline Optimization</i> Developed a fast-performing application to track sales leads and bottlenecks. Used data caching, aggregation, and query optimization for speed. Improved customer ability to manage sales pipelines effectively.	
Mar2014–Jan2016	<b>Junior Software Development Engineer</b>	XenCALL, Vancouver, British Columbia, Canada
	<ul style="list-style-type: none"> <li>- Developed a secure payment portal used by 10k+ customers, reducing support tickets by 40%</li> <li>- Developed call center data reports to improved data visibility to gain 100+ user complements</li> </ul>	
	<i>Project: Tech Support Performance Management System</i> Created a system to track tech support agents' work hours and calculate wages accurately. Ensured fair pay, motivated punctuality, and clarified promotion criteria.	
	<i>Project: Agent, Call Log, and Dialer Reports</i> Developed reports to extract and present call center data with filtering, sorting, and heatmap features. Improved data visibility, enabling better decision-making.	
Jul2012–Jan2014	<b>Interactive Test Engineer</b>	Gaming Laboratories International, Burnaby, British Columbia, Canada
	<ul style="list-style-type: none"> <li>- Performed source code review on gambling software to ensure fidelity</li> <li>- Developed software programs to automate repetitive testing procedures</li> <li>- Performed manual QA tests and regression tests to detect software bugs</li> </ul>	
	<i>Project: C++ program to automate testing process</i> Developed a desktop tool to automate some game testing process. Automatically run slot machine games and verify if the result is expected.	

## EDUCATION

2008 – 2012	<b>Bachelor's Degree of Computer Engineering (Software Option)</b>	University of British Columbia
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## CERTIFICATIONS & TRAINING

2016	<b>Unity VR Developer Workshop</b>	Circuit Stream
2018	<b>Intro to Agile and Scrum</b>	Agile42
2019	<b>Intro to Deep Learning</b>	CloudXLab
2025	<b>Program Management Foundations</b>	Linkedin Learning

## VOLUNTEER EXPERIENCE

2024 – Now	<b>Technical Manager</b> Website development and maintenance, events preparing and hosting	Career Up Club
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