Yinsheng Zhou

SOFTWARE ENGINEERING LEADER · CERTIFIED SCRUM MASTER

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Summary

Seasoned and accomplished software engineer and architect with a history of helping enterprises transform their IT R&D capabilities, while improving the companies' productivity and revenue. Adept in coaching software engineering team to consistently maximize team's agility. As a team leader, I bring an in-depth, detail-oriented, and forward-thinking perspective necessary to solve every problem encountered during the product or system development.

Education

National University of Singapore
Singapore

PH.D. IN COMPUTER SCIENCE
Jul, 2008 - Mar, 2013

- Awarded a 4-year full scholarship to pursue Ph.D. and defended my thesis in 2012 and earned my degree in 2013. My doctoral dissertation topic is Collaborative Mobile-Learning Systems for Music Education and Training.
- Full time direct PhD program from Bachelor degree.

Fudan University
Shanghai, China

B.S. IN COMPUTER SCIENCE
Jul, 2004 - Jun, 2008

- Got student scholarships every year due to top ranking in academic performance.

Experience

Singapore Airlines
Singapore

SENIOR PRINCIPAL TECHNOLOGIST
Sep, 2023 - Present

- Strategic Mobile Architecture & Optimization: Spearheaded the One Channel strategy (SAA/SQM), designing high-performance Web-View architectures (JSBridge, precaching) and optimizing critical paths like Manage Booking to achieve competitive search and load times against industry benchmarks.
- GenAI-Driven SDLC Transformation: Revolutionized the development lifecycle by operationalizing Generative AI for automated user story generation, code assessment, and batch translations (using Claude Code/Jenkins), successfully reducing development cycle times and integrating AI-driven workflows into daily engineering practices.
- Technical Leadership & Re-architecture: Led the strategic transition from outsourcing to in-house development (insourcing) for critical projects including ORC, MealVS, and ATVS, driving the adoption of Hexagonal Architecture and Domain-Driven Design (DDD), and standardizing Schema Libraries for core airline entities.
- Engineering Analytics & Efficiency: Designed and deployed the SQLens engineering metrics dashboard using AWS QuickSight to visualize key performance indicators (Cycle Time, Release Frequency, Defect Escape Rate), cleaning complex JIRA datasets to establish data-driven transparency and drive team productivity improvements.
- Mentorship & Team Development: Established comprehensive mentorship programs and technical guilds to foster a One Code Base culture, actively mentoring Tech Leads and Senior Engineers while collaborating with cross-functional stakeholders to align technical execution with business value (e.g., cost savings and microsite goals).

Lazada South East Asia Pte Ltd, Alibaba Group
Singapore

VICE PRESIDENT OF ENGINEERING
Mar, 2021 - Aug, 2023

- Developed and managed 11 commercial data products for internal & external stakeholders with good user satisfaction.
- Consistently designed and enhanced the technical architecture to improve the product user experience, system stability, and developer efficiency.
  - Implemented entity change logging service based on Java serialization and use Java AOP to make it unintrusive on business logic.
  - Implemented staging and production data segregation solution using Mybatis plugin and Alibaba Druid.
  - Implemented database disaster recovery mechanism circuit breaking on master/backup database instances using sentinel library.
  - Improved API response time performance using cache, parallel processing, and SQL optimization by up to 35 times.
  - Developed using local test driven development, reusable software components, and low-code Function As a Service platform.
- Successfully built a pipeline of ETL data processing and machine learning model execution with Alibaba SchedulerX platform, in order to automate the process of model execution and data synchronization jobs for Lazada & Citibank Data Project and RedMart Price Kaki Project. It freed one developer from the mundane manual execution job so that he can spend more time on other projects.
- Monitored and reported on the system stability issues by using monitoring dashboard and linux application logs.
- Split large and complex requirements into product increments, organized sprint planning sessions & standups, and assigned tasks to developers.
- Led a 12-person team including Frontend (7) and Backend (5) engineers in the regional data team, hired, coached, and developed talent.

Singapore Press Holdings

PRINCIPAL ENGINEER, SOFTWARE

Singapore

Jul, 2019 - Mar, 2021

- Worked with product managers and stakeholders to adopt the new market trend features into the products.
- Built fully automated CI/CD pipelines on AWS for containerized applications using Docker, AWS ECR and CodeDeploy.
- Designed a Behavior-Driven Rewards and Loyalty API SaaS product using the microservices architecture.
- Implemented several API microservices in Node.js Express and the Admin Portal in React/Redux.
- Deployed a centralized logging environment(ELK, CloudWatch, S3) which gather log data from docker containers and AWS resources.
- Zaobao Rewards Loyalty Programme won the Best in Audience Engagement in ADMA 2020. Since released to the market in Feb 2020, the program has lifted the audience engagement by 59%.
- Led a rewards and loyalty platform team (6 developers) and a digital sales and group marketing team (6 developers) using Scrum.
- Drove an interest group (Advanced Technology Lab) for AR/VR, AI, & blockchain technology in the media industry.

Wirecard Asia Holding Pte. Ltd.

SENIOR DEVELOPER

Singapore

May, 2017 - Jun, 2019

- Implemented a data cleansing and verification platform in Node.js Express and Angular.JS for parsing regional merchant documents.
- Built data pipelines to migrate the data into the more structured data models in Data Warehouse.
- Designed and built D3.js widget to visualize and customize the enterprise entity hierarchy.
- Developed an automated massive parallel processing pipeline to calculate merchant transaction fees, which resulted in 20 times processing speed and 2 times cost reduction.

IBM

ADVISORY SOFTWARE ENGINEER

Singapore

Mar, 2013 - May, 2017

- Developed enterprise applications for two blockchain projects, which got public exposure in MAS FinTech Festival 2016.
- Responsible for the UX/UI conceptual design, UI and backend API implementation, application's continuous integration with cloud, and project management.
- Built an automated data ETL system, and developed a web app for real-time visualization of all the vessels and heat-map visualization of the congested areas in the Singapore port.
- Developed train simulation visualization module, passenger flow visualization in React based on origin-destination pair predictive analytics, and incident analytics module.
- Developed a solution on mobile platform for identifying dengue hotspots using the information collected by operators. Demonstrated the solution's capability to prevent dengue outbreaks.
- Developed a web search engine in React on Bluemix (PaaS) to make the local charity organizations more transparent and eventually help charity donors to donate more efficiently.

Skills

DevOps	AWS, GCP, Docker, Kubernetes, Jenkins, Ansible, Git, Jira, CI/CD
Backend	Spring, Spring Boot, Express, Django, REST API
Frontend	React, Redux, AngularJS, Vue.js, D3.js, jQuery, Flutter
Database	MySQL, PostgreSQL, MongoDB, Vertica
Programming	Java, Python, JavaScript, Ruby, Golang, LaTeX
Languages	English, Chinese

Additional Work

Global Coding Bootcamps

PART-TIME INSTRUCTOR

Singapore

Mar, 2020 - Present

- Teaching web development and data science curricula, including Javascript, Ruby, Python, scikit-learn, Express.JS, MongoDB, React, jQuery, algorithms, and coding interviews.

Certifications

Certified ScrumMaster (CSM)

SCRUM ALLIANCE

International

Issued Nov. 2020 · Expires Nov. 2022

- Credential ID: 001136451 and Credential URL

Honors & Awards

2022	**FY2022 DT Annual Honours and Awards,** Enabling Customer Success - Lazada Seller Commitment Score	*Singapore*
2020	**Best in Audience Engagement,** Asian Digital Media Awards (ADMA)	*Singapore*
2015	**Winner,** IBM Chairman Environmental Award	*Singapore*
2015	**Finalist,** INFORMS Innovative Applications in Analytics Award	*Philadelphia, U.S.A*
2014	**Winner,** IS Technical Accomplishment	*Singapore*
2015	**Winner,** IBM Service Excellence Award	*Singapore*
2012	**Winner,** Student Travel Grant from ACM Multimedia	*Nara, Japan*
2012	**Winner,** NUS Research Achievement Award	*Singapore*
2011	**Winner,** ACM SIGCHI Honorable Paper Mention Award	*Vancouver, Canada*
2010	**Winner,** London Imperial College Research Skills Development Award	*Singapore*
2008 - 2012	**Winner,** NUS Graduate Scholarship	*Singapore*
2008	**Winner,** Excellent Graduate Award by Fudan University	*Shanghai, China*
2005 - 2007	**Winner,** Fudan University Undergraduate Scholarship	*Shanghai, China*

Publications

Collaborative Mobile-Learning Systems for Music Education and Training

Yinsheng Zhou

Doctoral Dissertation

2013

Preservation Of Privacy Of Inputs

Yinsheng Zhou, Yu Chin Fabian, Pralhad, Chun Hui and Venkatraman

U.S. Patent

Oct 2020

Peer Voting on Blockchain

Anuj Chopra, Yinsheng Zhou, Yuan Yuan, Wenbin Zhang

U.S. Patent

Nov 2017

Airborne Particulate Source Detection System

Kyongmin Yeo, Yinsheng Zhou, Xiao Liu, and Jayant R. Kalagnanam

U.S. Patent

Dec 2016

CESUS: A Cost-Effective Massively Parallel Processing Solution Under a Resource Strapped Situation

Yinsheng Zhou, and Grigoriy Kuznetsov

Technical Report

2017

Using the MOGCLASS in group Music Therapy with individuals with Muscular Dystrophy: A pilot study

Wang Feng NG, Yinsheng Zhou, Ye Wang, and Patsy Tan

Music and Medicine (MMD), SAGE

2012

MOGAT: Mobile Games with Auditory Training for Children with Cochlear Implants

Yinsheng Zhou, Khe Chai Sim, Patsy Tan, and Ye Wang

ACM Multimedia, Nara, Japan

Oct 29 - Nov 2, 2012

MOGAT: A Cloud-based Mobile Game System with Auditory Training for Children with Cochlear Implants

Yinsheng Zhou, Toni-Jan Keith P. Monserrat, Ye Wang

ACM Multimedia, Nara, Japan

Oct 29 - Nov 2, 2012

A Tempo-Sensitive Music Search Engine With Multimodal Inputs

Yu Yi, Yinsheng Zhou, Ye Wang

MIRUM, Scottsdale, Arizona, USA

2011

MOGCLASS: Evaluation of a Collaborative System of Mobile Devices for Classroom Music Education of Young Children

Yinsheng Zhou, Graham Percival, Xinxi Wang, Ye Wang, Shengdong Zhao

ACM CHI. Vancouver, BC, Canada

May 7 - 12, 2011

MOGCLASS: A Collaborative System of Mobile Devices for Classroom Music Education

Yinsheng Zhou, Graham Percival, Xinxi Wang, Ye Wang, and Shengdong Zhao

ACM Multimedia, Firenze, Italy

October 25 - 29, 2010

MOGFUN: Musical mObile Group for FUN

Yinsheng Zhou, Zhonghua Li, Dillion Tan, Graham Percival, and Ye Wang

ACM Multimedia, Beijing, China

October 19 - 24, 2009