

Work Experience

Co-Founder & Principal Consultant

Sysnematic

July 2019 ~ Now (Self-employed)

Responsibilities

Having being a software engineer, a DevOps engineer, a solution architect, a technical and running my first consultancy company Codellider for a while, I feel like there are so many more challenges out to be solved and it's time to get excited and serious.

This is my second IT consultancy company and this time we have more experiences, opportunities and a more business focused lens while designing, building and deploying technical solutions. I discovered that love talking to clients, understanding various challenges in different industries and really enjoying designing technical solutions that are solid, creative, future-proof, but still pragmatic.

I am here to fill the gap of business and technology, just like every other consultant from every other consulting company. However, the difference is that I've been in different roles and doing different things, and I have been doing them well. From writing highly-concurrent distributed applications to fire-fighting production environment at 3 AM in the morning; from designing a multi-tenant data platform using Kubernetes and DataBricks, to sitting down and explaining to people what is OAuth and mutual TLS authentication.

So when you are talking to me you will have the confidence that you are not just dealing with someone who has an idea that "OAuth" is great so let's use it, but someone who actually read the RFCs, built OAuth servers and clients from scratch, and have implemented it in multiple commercial projects in large companies. You will be surprised how many "security experts" in large enterprises never tried to decode a "JWT" token, and I can assure you that I am not one of those.

No problem out there is a pure technical problem, so let me know your business challenges at hand, and let's work together to solve them.

Achievements

- Lead a team that design and build a cloud-native serverless application that assists a major Victorian milk transportation company to optimise thier transportation process. (Node.js, AWS Lambda, DynamoDB, Hybrid Network, etc...)

- Lead project between ourselves and vendors to transform a legacy .Net monolith application to a modern cloud-native application. (Apigee, Auth0, Google Cloud Functions, etc...)
- More projects on-going and to be added... :)

Software Engineer / Data Engineer / DevOps Engineer

Telstra

September 2018 ~ Now (Full time)

Responsibilities

- Working in Telstra as a Software Engineer / Data Engineer / DevOps Engineer in the Telstra Data Hub project (<https://bit.ly/2k6Lz1k>).
- Design and architect data-oriented platform which will be used across different industries and government organisations, with the specific focus on Authentication and Authorisation.
- Lead a team of talented engineers to build and operate the platform using modern platforms & technologies (Microsoft Azure, DataBricks, Spark, Kubernetes, Open Policy Agent, gRPC, .Net Core, Scala, Python, Golang).
- Work closely with product owners, business stakeholders and industry partners to create platforms that focus on delivering business values.
- Work in two agile teams incubated in Telstra Enterprise run like small businesses.

Achievements

- Designed and guided a team to implement a multi-cloud microservices system with secure service-to-service authentication (API keys, mutual TLS and JWT token) and authorisation (policy based authorisation with Open Policy Agent).
- Designed and implement big data pipelines for high volume secure data ingestion with HTTP and MQTT using Azure Kubernetes Service, Azure Event Hub, Azure Data Warehouse and DataBricks (Spark with Scala jobs)
- Created and set up CI/CD pipelines for different technologies and platforms like .Net Core, Spark, Kubernetes and DataBricks.
- Influenced the product team's workflow and tooling to fully embrace good DevOps practices and enabled fast deliveries.
- Implemented a distributed load testing application (with Akka in Scala) capable of producing 30,000,000 messages per second with 10,000,000 stateful simulation instances.

Co-founder & Technology Lead

Codellider

February 2017 ~ Jun 2019 (Self-employed)

Responsibilities

- Communicating and negotiating with clients to understand the business requirements and find the most cost effective way to solve their business problem.
- Architecting and design solutions on a mainly cloud base infrastructure (AWS, Azure).
- Engineering software and performing code reviews to ensure the quality of the code meets the performance, security and reliability standard.

- Write software as a Developer, automate process as DevOps, maintain and monitor systems we deployed as Operations.

Achievements

- Delivered multiple projects for different sizes of businesses in good quality and efficient cost.
- Designed systems that is highly available, scalable and resilient on AWS platform.
- Able to coordinate different team members with different skillsets to collaborate together efficiently on a remote work basis.

Senior DevOps Engineer

AGL Energy

March 2018 ~ Aug 2018 (Full time)

Responsibilities

- Work in a SAFe Agile environment with cross-functional scrum teams. Be responsible to promote the culture and practices of following the DevOps principle.
- Work with cutting edge platforms and technologies like Microsoft Azure, Kubernetes, Splunk, Prometheus, Auth0, .Net Framework.
- Help to shape enterprise solutions to allow better serviceability, monitoring and alerting to meet the increasing business requirements and demands.
- Writing APIs and Azure Function Apps to enable application health monitoring, log aggregation and stabilise enterprise platforms.
- Produce documentation on system architecture, design and cross-platform integration mechanisms.

Lead DevOps Engineer

Bupa Australia

January 2017 ~ March 2018 (Full time)

Responsibilities

- Provide recommendations about best practices and development processes to developers and operations. Provide help for system architectures and security analysts to make design decisions and improvements.
- Set up enterprise scale CI/CD pipelines with multiple environments. Implement monitoring to development, testing and production environments.
- Promote DevOps culture and workflows on Microsoft Azure and on-premise systems. Giving information sessions about DevOps culture, tools and best practices.
- Automate existing manual tasks to improve deployment efficiency and reliability.
- Work efficiently with multiple teams across multiple expertise and countries.

Achievements

- Improved the CI/CD workflow and process of a major digital transformation project which allowed multiple deployments per day across the whole stack with a large multi-national

team.

- Identified multiple architecture improvements and potential security vulnerabilities which helped to improve the quality of the product.
- Delivered technical information sessions and workshops on GIT source control to multiple development teams. Presented benefits to management and business stakeholders which facilitated a top-down transition from TFVC to GIT.

Senior Software Engineer & Solution Architect

Digicap Solutions

September 2012 ~ December 2016 (Full time)

Responsibilities

- Develop and architect software solutions for clients that integrate with different existing systems.
- Communicate directly with clients to seek solutions and manage multiple projects.
- Write server side applications (APIs) in C#, Golang, NodeJS, PHP.
- Write web applications with and without CMS, experienced in JavaScript especially AngularJS.
- Crisis management when something goes wrong like website is attacked.
- Manage cloud based infrastructures on both AWS and Azure, including multiple Linux servers and Azure web applications for multiple clients.
- Setup development, testing and production environments for the team using Vagrant, Docker, Jenkins etc.

Achievements

- Established a container (Docker) driven development and deployment workflow using Docker.
- Designed multiple systems with 1000+ requests per second and high availability and redundancy.
- Developed multiple systems for clients of various sizes and requirements and deliver within a set timeframe.
- Led a development team of up to 5 people using both Waterfall and Agile processes to deliver projects within budget and timeframe most of the time.

Clients and Projects

Lifestyle Communities

ASX public company; real estate; thousands of users each month on website



- Architected and developed their [official website](https://www.lifestylecommunities.com.au) (<https://www.lifestylecommunities.com.au>) using .Net technology and tightly integrate with [Runway](http://www.runway.com.au) (<http://www.runway.com.au>) CRM system
- Set up, configured and currently managing production and staging web instances and database on Azure for multiple assets
- Configured and setup continuous integration and continuous deployment for their assets

McMillan Shakespeare Group

ASX public company; salary packaging, novated leasing, asset management and insurance; multiple projects

- Built and currently managing multiple brochure websites
- Built business portal using .Net technology and AngularJS
- Was able to work with their deployment and QA process
- Participated the planning of complicated system migration
- Managed and helped debugging legacy systems
- Produced reports during and after website incidents

MMS

Oliver Hume Corporation

Property research and advisory firm; multiple projects

- Built multiple websites for multi-million dollar development projects
- Built internal websites for sales and presentation purposes
- Was able to work with tight deadlines and detailed requirements
- Provided innovative solutions to meet business needs on short notices



FMC Mediation and Counseling Victoria

Government founded organisation to help people "take back control over their lives"

- Helped with data analysis and reporting by generating files that used to report to Department of Social Services directly from their system
- Built government-sponsored project [financialfirstaid.org.au](https://www.financialfirstaid.org.au) (<https://www.financialfirstaid.org.au/>) which was covered by [media](https://www.thesenior.com.au/financial/is-it-time-for-some-financial-first-aid/) (<https://www.thesenior.com.au/financial/is-it-time-for-some-financial-first-aid/>)
- Built and currently managing multiple brochure websites



Sports Dietitians Australia

Sports dietitian accreditation management across Australia

- Architected and built their [official website](https://www.sportsdietitians.com.au/) (<https://www.sportsdietitians.com.au/>) and membership management system using open-source technologies; full AngularJS portal and plenty of API integration between different systems
- Helped to define and optimise membership and accreditation business rules
- Actively maintain and update the website to meet constant changes of business rules



Royal Agricultural Society of Victoria

Event organiser and event venue management

- Built [MelbourneShowgrounds.com](https://www.melbourneshowgrounds.com/) (<https://www.melbourneshowgrounds.com/>) website and helped with site migration
- Participated in skinning the ticketing system for [Royal Melbourne Show](https://royalshow.com.au/) (<https://royalshow.com.au/>)



Software Engineer

Glow (An Engagement Innovation company)

August 2014 ~ June 2016 (1 year 11 months, Part time)

Responsibilities

- Write frontend applications using AngularJS.
- Write unit testing for code written and verify before merge.
- Participate in code reviews and actively seek for better solutions.

Product

Glowfeed

Fast growing [cross platform app and business backend system](https://glowfeed.com/#/) (<https://glowfeed.com/#/>) to help businesses get real-time insights from their customers



- Helped with building website-based portal, which included multiple assets and required both frontend and backend knowledge; AngularJS + Symfony + MongoDB
- Wrote unit tests to help improving the quality of existing applications
- Provided constructive suggestions to project architectures

Information Services Support Technician

University of Nottingham Ningbo China - IT Services

September 2008 ~ May 2012 (3 years 9 months, Part time)

Responsibilities

- Provide IT support for students and staff across the university.
- Regularly inspect computers and printers to ensure their functionalities.
- Provide professional audio equipments setup and configuration support behind the stage for shows and lectures.
- Record and encode videos for lectures and speeches plus simple after-event editing.

Professional Certifications

Professional Scrum Master I

Scrum.org

June 2017

- Solid understanding of the Scrum framework as a Scrum Master.
- Able to efficiently facilitate teams and organisations to adopt and transform to Scrum.

Red Hat Certified Engineer (RHCE)

Red Hat

August 2011 - August 2014

- Demonstrate real hands-on experience on Red Hat based Linux systems.
- Advanced troubleshooting and system diagnosing skills.
- Able to install and configure wide range of system services including iSCSI, HTTP/HTTPS, FTP, NFS, SMB, SMTP, SSH and NTP and various types of databases.

Linux Professional Institute Certification I & II

Linux Professional Institute

September 2009 - September 2013

- Perform advanced system administration, including common tasks regarding the Linux kernel, system startup and maintenance.
- Perform advanced management of block storage and file systems as well as advanced networking and authentication and system security, including firewall and VPN
- Install and configure fundamental network services, including DHCP, DNS, SSH, Web servers, file servers using FTP, NFS and Samba, email delivery
- Supervise assistants and advise management on automation and purchases.

Professional Skills

Languages

Technology	Knowledge Level
Golang ★	5
JavaScript & Typescript ★	5
C#	5
PHP	5
HTML, CSS	5
Python, Scala	4
Powershell & Bash	4
Java	3
C, C++	2
Erlang, Rust, Haskell	1

Libraries & Frameworks

Technology	Knowledge Level
.Net Framework, Core and Standard (C#)	5
Akka (Scala, .Net)	4
Angular & Angular.js ★ (JS, TS)	4
React.js (JS, TS)	4

Infrastructures & Services

Technology	Knowledge Level
Amazon Web Services ★	5
Microsoft Azure ★	5
Google Cloud Platform ★	5
Kubernetes & Docker ★	5
Ansible ★	5
Linux (Debian & RHEL based) ★	5
Spark & DataBricks	4
Apache Kafka & Cassandra	4
MySQL, SQL Server & PostgreSQL	4
Redis	4
Elastic Stack (ELK) ★	3
Ceph & Glusterfs	3
Windows Server	3
MongoDB	3
FreeBSD	2
RabbitMQ	1

Hardware & Embedded Systems

Technology	Knowledge Level
AVR uC Programming (C++) ★	5
Schematics & PCB Design	4
ARM Cortex uC Programming (C++) ★	3

Computer Science & IT Theories

Tools	Knowledge Level
Integration and Design Patterns ★	5
Software and System Architecture ★	5
Network & System Security ★	5
Network Protocols and Services	5
Computer Architecture	4
Cryptography ★	4
Algorithms and Data Structures	4

Education

Monash University

Master of Information Technologies

July 2012 ~ July 2014 (Caulfield Campus)

Highlights

- Specialised in Security and Software Development
- Included a lot of theoretical courses to provide solid Foundations to my existing practical skills
- Achieved highest score in unit "Computer Technology and Operating Systems", which proved solid understanding of computer architecture

Some units taken

- Advanced Network Security
- Network Security
- Computer Technology and Operating Systems
- Network Protocols and Standards
- Data Communications
- Virtual Private Network
- Database Analysis and Processing
- System Analysis and Design
- Information Retrieval Systems
- Internet Applications Development
- Enterprise Application Development for the Web
- Android and iOS Development
- Semi-structured Data Management

University of Nottingham

Bachelor of International Relations and Affairs (with Honours)

September 2008 ~ July 2012 (China Campus)

Highlights

- A lot of presentations and essays that improved my communication skills
- Provided opportunities for me to think and express ideas critically
- Social science, especially politics, taught me how people think and how to deal with them
- A great challenge for me to study a subject that I am not good at but was clearly going to be beneficial

Some units taken

- Diplomacy: Past, Present, Practice
- Strategic Management
- International Business Environment
- International Organisations
- International Political Economy
- The Politics of Development
- Introduction to Business Operations
- The Origins of Capitalism
- Comparative Politics
- Understanding Global Relations
- Issues in Global Relations
- The European Union: Institutions
- Introduction to Analytical Thought

Simplicity is the peak of civilisation.

Find me on [Github](https://github.com/xinsnake) (<https://github.com/xinsnake>), [Bitbucket](https://bitbucket.org/xinsnake) (<https://bitbucket.org/xinsnake>) or [LinkedIn](https://au.linkedin.com/in/xinyun-zhou) (<https://au.linkedin.com/in/xinyun-zhou>).

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