

Andrew Ding

SENIOR SOFTWARE ENGINEER · AZURE DEVOPS ENGINEER

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Summary

Developer with proven experience in architecting and developing both web and client-server applications. Recognised by managers, colleagues and clients as a reliable, dedicated performer who demonstrates innovation, communication, and teamwork to ensure timely and quality project completion. • 15 years of .NET development experience. • 12 Years of commercial .NET development experience. • 3 Years of React commercial development experience. • 10 Years of commercial Angular development experience. • Programming Languages: AngularJS, React, Angular, Typescript, C#, VB.NET, LINQ, T-SQL, AJAX, XSLT, XML, XAML, jQuery, NUnit, JavaScript, HTML, CSS • Technologies/Platforms: .NET Framework, ASP.NET, Web Services, WCF, ADO.NET, AJAX, JSON, Windows Services, MVC, Entity Framework 4, 5, Single Page App Azure, Docker React, Angular JS Angular React Native SVN and Git Source control, Microsoft TFS Server • Databases: SQL Server (all versions), Microsoft Access. • Other Skills: All phases of the software development life cycle (requirements, design, development, testing, release, support), utilizing multiple development methodologies, including OOD, Extreme Programming, Structured Programming, Agile method, Test Driven Development

Work Experience

SpyderTech

SENIOR SOFTWARE ENGINEER \$AZURE DEVOPS ENGINEER

Sydney

July. 2022 - Present

Lake Maintenance

SENIOR SOFTWARE ENGINEER

Sydney

May. 2013 - July. 2022

- Everything that matters.
- Designed and provisioned the entire infrastructure on the AWS cloud to meet security compliance and acquire a business license for financial services in Korea.
- Continuously improved the infrastructure architecture since launching the service. (currently 3.6 million users)
- Established a standardized base for declarative management of infrastructures and service deployments, enabling operational efficiency and consistency. Over 90% of AWS resources were all managed through standardized terraform modules. All add-ons and service workloads on the Kubernetes cluster were managed on a GitOps basis with Kustomize and ArgoCD.
- Saved over 30% of the overall AWS costs by establishing a quarterly purchasing strategy for RI (Reserved Instance) and SP (Savings Plan) and by introducing Graviton instances.
- Established a core architecture for regulating of outbound DNS traffic in multi-account and multi-VPC environments utilizing AWS Route53 DNS Firewall and FMS. This significantly increased the level of security confidence in the financial sector's segregated environment.
- Introduced Okta employee identity solution in the company, establishing security policies and configuring SSO integration with over 20 enterprise systems including AWS, GitHub, Slack, Google Workspace. Set up a Hub and Spoke architecture, enabling a collaborative account structure with the parent company, Daangn Market.

Andrew IT Services

DIRECTOR & SOFTWARE ENGINEER

Sydney

Jan. 2017 - Present

- Designed on-boarding process to guide new engineers, help them to focus on the right tasks, and set expectations to help them be successful at Infrastructure team.
- Migrated the orchestration system from DC/OS to Kubernetes which is based on AWS EKS. Managed 3 Kubernetes clusters and 300+ pods. Managed all Kubernetes manifests declaratively with Kustomize and ArgoCD.
- Designed and managed complex network configurations on AWS with 4 VPC and 100+ subnets. Separated the development network and operation network according to financial regulations. Established dedicated network connections from AWS VPC to partners' on-premise network based on AWS Direct Connect with secure connection using IPsec VPN. Provisioned OpenVPN servers with LDAP integration.
- Provisioned a observability system with Kafka, Elastic Stack(Filebeat, Heartbeat, APM Server, Logstash, Elasticsearch, Kibana). Collected log, uptime, tracing data from hosts, containers, pods and more. The ES cluster which has 9 nodes processed more than 1 billion documents per month. Wrote Terraform module to easily provision ES cluster on AWS EC2 instances.
- Provisioned a monitoring system with Kafka, Telegraf, InfluxDB, Grafana. Collected metrics from hosts, containers, pods and more. Wrote Terraform module to easily provision InfluxDB with HA on AWS EC2 instances.
- Introduced Kong API Gateway to easily connect all API microservices with a declarative management method based on Terraform and Atlantis to collaborate and audit change history.
- Provisioned the Directory Service for employee identity management based on OpenLDAP which guarantees HA with multi-master replication.
- Implemented Worker microservices consuming Kafka event topics for email, SMS, Kakaotalk and Slack notification. Developed in-house framework to easily build Kafka consumer microservice with common features including retry on failure, DLQ(Dead Letter Queue), event routing and more.
- Introduced Elastic APM to help distributed tracing, trouble-shooting and performance testing in MSA.

CSC

SOFTWARE ENGINEER

Sydney

Nov. 2012 - Mar. 2013

Electronic Mobile Pty Ltd

Sydney

CO-FOUNDER & SOFTWARE ENGINEER

Jan. 2012 - Jan. 2016

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MIA International

Sydney

SOFTWARE ENGINEER

May. 2010 - Dec. 2011

- Provisioned an easily managable hybrid infrastructure(Amazon AWS + On-premise) utilizing IaC(Infrastructure as Code) tools like Ansible, Packer and Terraform.
- Built fully automated CI/CD pipelines on CircleCI for containerized applications using Docker, AWS ECR and Rancher.
- Designed an overall service architecture and pipelines of the Machine Learning based Fashion Tagging API SaaS product with the micro-services architecture.
- Implemented several API microservices in Node.js Koa and in the serverless AWS Lambda functions.
- Deployed a centralized logging environment(ELK, Filebeat, CloudWatch, S3) which gather log data from docker containers and AWS resources.
- Deployed a centralized monitoring environment(Grafana, InfluxDB, CollectD) which gather system metrics as well as docker run-time metrics.

Helecom System Pty Ltd

Sydney

SOFTWARE ENGINEER

Jan. 2007 - Jun. 2010

- Implemented RESTful API server for car rental booking application(CARPLAT in Google Play).
- Built and deployed overall service infrastructure utilizing Docker container, CircleCI, and several AWS stack(Including EC2, ECS, Route 53, S3, CloudFront, RDS, ElastiCache, IAM), focusing on high-availability, fault tolerance, and auto-scaling.
- Developed an easy-to-use Payment module which connects to major PG(Payment Gateway) companies in Korea.

Zhejiang Pan-China Software Co Ltd

China

SOFTWARE ENGINEER & SECURITY RESEARCHER (COMPULSORY MILITARY SERVICE)

July. 2003 - July. 2004

- Lead engineer on agent-less backtracking system that can discover client device's fingerprint(including public and private IP) independently of the Proxy, VPN and NAT.

Honors & Awards

INTERNATIONAL AWARDS

Certificates

- 2024 **Azure AI Engineer Associate**, Microsoft
- 2022 **Azure Fundamentals**, Microsoft
- 2015 **Microsoft Certified Professional**, Microsoft

Education

University Of Wollongong

Australia

MASTER OF INFORMATION & COMMUNICATION TECHNOLOGY

2005 - 2006

University Of Wollongong

Australia

MASTER OF INTERNET TECHNOLOGY

2004 - 2005

Zhejiang University of Finance & Economics

China

BACHELOR OF COMPUTER SCIENCE

2005 - 2006