Chong Yun Long

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www
flickr.com/clouddra
github.com/clouddra
linkedin.com/in/chongyl

languages
english – fluent
chinese[mandarin] –
fluent
japanese –
conversant

programming
C#, Ruby
Typescript, JavaScript
Java, Python,
C++, C, x86-64
Erlang
LaTeX

frameworks/libraries
React.js
ASP.NET Core
Ruby on Rails, RSpec
Redux, Immutable.js
Android SDK, iOS
SDK

education

National University of Singapore   Aug 2010 →June 2014
1st Class Honours in Bachelor of Computing, Computer Science
- Dissertation (Applied Cryptography) – *Efficient Key Aggregation for Cloud Storage*
- Specialization in Information Security, focus area in Parallel Computing
- Awarded Dean's List for 3 semesters

publications

Practical and Scalable Sharing of Encrypted Data in Cloud Storage with Key
Aggregation   IH&MMSec 2016
React Rails for Business Grants Portal   Medium

experience

nuTonomy   Jan 2015 →Now
Software Engineer
- Full stack developer (.NET Core/React) for shared services/mapping team.
- Implemented tiling based three.js mesh garbage collector which improved frame rates of annotated maps by 300%.
- Introduced and coached the software team on Typescript/React. New CRUD services are written in Typescript/React and old services are incrementally rewritten using Typescript.
- Built and pioneered various microservices (logs processsing, bookings, command center, computations) using modern .NET core on linux. Established coding standards for all backend microservices used in the company.
- Set up one-command deployment procedures for all backend microservices by leverage on AWS cloud services(Elasticbeanstalk, Docker, Kinesis, Terraform). Uptime is higher and less error prone as compared to SSH-based deployments used previously.
- Migrated log processing service from a single machine to a cloud-based service using streaming and reactive programming techniques (Rx.NET), resulting in improved reliability and scalability (processing thousands of car logs $\approx$1TB daily)
- Set up company-wide authentication/authorization OAuth service using Auth0 to better protect company's intellectual property
- Technology stack: ASP.NET Core MVC, Typscript, React, Redux, AWS Tools

Government Technology Agency of Singapore (GovTech) Jan 2015 →Now
Product Engineer, Government Digital Services (GDS)

- Ruby on Rails/React.js developer for Business Grant Portal (BGP) involving various government agencies.
- Re-engineered the entire BGP frontend/backend into a single-page application to provide a slicker user experience and interface.
- Established a unified architecture for BGP to reduce application complexity, improve code reusability, reliability and performanc.e
- Set up dashboards (Grafana, Prometheus) to visualize key business metrics and to monitor system performance.
- Mentored and coached the team, new hires and vendors on the latest open source technologies.
- Employed modern software development methodologies and techniques (scrum, test-driven development, pair programming) to deliver quality products with high business value.

DSO National Laboratories July 2014 →Jan 2015
Member of Technical Staff, Computer Security Lab

- Analyzed protection mechanisms of Microsoft Windows kernel
- Researched novel reverse engineering techniques using emulators and virtualization technologies
- Conducted network security research on NAT networks
- If I told you more I would have to kill you …

TADA Pte Ltd May 2013 →Aug 2013
Mobile Development Intern

- Independently picked up iOS and Android development concepts within a period of 3 months.
- Developed *Shoppink* (Android, 2 months) – mobile e-commerce platform for blogshops. Shoppink uses a specialized algorithm to tracks products from over 200 blogshops.
- Developed *ToMyself* (iOS, 1 month) – mailer app designed for users who frequently send emails to themselves. *ToMyself* is available on App Store.

certifications

Kanban Management Professional - I	Jun 2016 →Now
Organizational Systems Web Application Pentester	Apr 2015 →Now
Certified ScrumMaster	Apr 2015 →Apr 2017