

# Chong Yun Long

## contact

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## www

flickr.com/clouddra  
github.com/clouddra  
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## languages

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

## programming

Ruby, Python  
JavaScript (ES6)  
Java, x86-64,  
C++, C,  
Erlang  
L<sup>A</sup>T<sub>E</sub>X

## frameworks/libraries

React.js, Ruby on Rails  
Redux, Alt, Immutable.js  
RSpec, Capybara  
Android SDK, iOS SDK  
diStorm disassembler

## tools

Webpack, Brakeman  
Burp Suite, mitmproxy  
IDA disassembler, QEMU

## 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

## projects

**WEP Cracker** Cryptanalysis attack on RC4 cipher used in WEP

**TeachMe!** Social networking site which aims to bring together people with common interests

**SPA** Static source code analyzer and parser

**Ethogram** Android app which simplifies the process of cataloging and recording animal behavior

**News Butler** Proof-of-concept Android news app which learns the preferences of user using data mining techniques

**impulsive-philanthropist** Google Chrome extension that encourages people to make donations when making online purchases

## 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

### Infocomm Development Authority of Singapore (IDA)

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 performance
- Set up dashboards (Grafana, Prometheus) to visualize key business metrics and to monitor system performance
- Built GDS's landing page using Gatsby.js
- 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
- Gained insights into entrepreneurship

**RGE Pte Ltd**

May 2011 – July 2011

*Summer Intern*

- Collaborated extensively with overseas team members for the development and testing of corporate dashboard, which presents raw data in a visually meaningful way, assisting the top management in their decision making process
- Assisted in the deployment of IT infrastructure for more than 100 staff in a newly renovated office
- Provided IT support for more than 300 end users, expediting the resolution of any technical problems faced so as to minimize disruption to their business
- Supported server and blackberry administration

**NCS Pte Ltd**

Nov 2009 – May 2010

*Temporary Staff, Chief Architect Office*

- Collaborated with a team of consultants of different nationalities for a multi-million dollar government project
- Assisted analysts in the design and coding of the mockups, giving clients a visual experience, allowing them to give better feedback on the system and helps streamlines the requirements gathering process
- Developed a prototype as an illustrative reference for offshore development teams who may have difficulties understanding the specifications due to language barriers

**certifications****Kanban Management Professional - I**

Since Jun 2016

*Lean Kanban University***Organizational Systems Web Application Pentester**

Since Apr 2015

*ThinkSECURE Pte Ltd***Certified ScrumMaster®**

Apr 2015 – Apr 2017

*Scrum Alliance*