

AdamYi

Software/Security Engineer interested in infrastructure, enthusiastic researcher/developer

Clickable links are red

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programming

C/C++, PHP
Python, Java, Golang
Objective-C, Matlab
L^AT_EX, Shell, SQL
JavaScript
CSS3 & HTML5

last updated

June 12, 2019
Rev. 17

education

University of New South Wales, Sydney Australia

Jul. 2018 – May. 2021

B.S. in Computer Science

Comp-Sci course WAM (Weighted Average Mark): 98/100 HD (High Distinction)

Cum. WAM: 91/100 HD

Relevant courses: *Data Structures and Algorithms* (99/100 HD), *Extended Web Application Security and Testing* (100/100 HD), *Database Systems* (100/100 HD), *System and Software Security Assessment* (COMP6447/9447) (unofficial student)

Currently taking: *Cyber Security Project*, *Web Data Compression and Search*, *Extended Algorithms and Programming Techniques*

[Click here to view academic statement](#)

experience

CHIMPS Lab, Human-Computer Interaction Institute, Carnegie Mellon University

Dec. 2016 – Oct. 2018

Research Assistant

- Co-developed an early prototype of [MessageOnTap](#), an Android framework to facilitate smart pop-ups based on user's instant messages, instructed by PhD candidate [Fanglin Chen](#)
- Designed and implemented the core extensible architecture of the early prototype of MessageOnTap, that would allow developers to extend the framework by developing their own plugins, and was in charge of [MessageOnTap API](#), its IPC library for communicating between plugins and core.
- Developed [an online system](#) and hired 2,500+ Amazon mTurk workers to annotate sensitive information in 65,000+ pieces of data for us to train a PII (Personally Identifiable Information) scrubbing algorithm (DeepScrub).
- Trained a [Word2Vec model with Reddit corpus](#) to predict apps user might use.
- Run the internal Git, Maven & Jenkins server used by our team.
- Called by colleagues "strong developer with creative ideas" and "more intelligent and mature than many graduate students" in [Liyao's blog post](#) and [Fanglin's recommendation](#)

awards

Honorable Mention

Oct. 2018

ACM-ICPC South Pacific Regional Sydney Site

Team of 3, solved half of the questions without any prior training.

Second Place

Oct. 2018

Cyber Security Challenge Australia (CySCA)

[CySCA](#) is Australia's only national cybersecurity competition (CTF), run by The Federal Government's Australian Cyber Security Centre and AustCyber, Telstra, PwC, Cisco, Microsoft, Commonwealth Bank, Splunk, BAE Systems, and HackLabs. I participated in UNSW3, a team of 4 students, and got the second place among 109 teams across Australia (427 students). The award includes flights to Canberra for award ceremony at Australian Signals Directorate office, flights and accommodation to Kiwicon 2018 in Wellington, New Zealand, and a Pixel 3 XL 128GB.

First Place

Aug. 2018

UNSW Security Society Capture the Flag

It's UNSW Security Society's largest internal CTF competition. In a team of two first-time CTF players, we got first place out of 30 teams.

Gold Medal

Apr. 2015

International Exhibition of Inventions of Geneva

The exhibition was organized by the Swiss Federal Government, during which I received a gold medal for designing a particulate matter detector using the light scattering method during junior/middle school. During the exhibition, I also received a Special Award from the [Taiwan Invention Association](#).

organizations

MUNPANEL

Nov. 2016 – Jul. 2017

Founder & Chief Technology Officer

- Led a team of 4 members to develop and run an online Model United Nations platform to digitalize how high school MUN works in China, which has served 3 conferences, 170+ registered schools, and 2,000+ registered users, with 500+ max DAU (daily active users), 235,000+ total visits and 490,000+ CNY cash flow till July 2017.

White Hat Hacking (Ethical Hacking/Cybersecurity Research)

Feb. 2015 – Present

- Discovered 10+ vulnerabilities in various bug bounty programs like Atlassian's.
- Discovered a zero-day vulnerability in [eYou.net](#), one of the two most widely-used email server software in China, used by the Government and many Chinese corporations.

Google Developers Community Programs (Beijing)

Jun. 2016 – May. 2018

Translator (Volunteer)

- Translated English subtitles of Google Developer videos including I/O keynotes into Chinese for official Youtube, Youku and Bilibili.
- Invited to Google I/O in Mountain View as a Community Partner.
- Reviewed and translated some of Google's official blog posts and announcements before releasing.
- Co-organized several local events like TensorFlow Dev Summit 2018 Extended Beijing at Google Beijing Office.
- Co-developed Flutter's official website in China ([flutter-io.cn](#)).

BJMUN (Beijing Model United Nations Association for High School Students)

Aug. 2016 – Aug. 2017

Co-Organizer

- Managed the largest MUN association in Beijing (60+ member schools) with 12 other co-organizers.
- Organized two of the most influential Model UN conferences (each with 500+ participants) for high school students in Beijing.
- Run the web, email, ns & git server of the association.

Chaoli Forum

Nov. 2014 – May. 2015

Co-Founder & Developer

- Developed functions like documents uploading, CDN integration, customer feedback, etc. based on [esoTalk](#), a no-longer maintained open source forum program, as a member of the initial development team and founding team of Chaoli forum, a forum for Math, Physics, Chemistry, and Informatics enthusiasts, which now has 5,000+ users and 40,000+ threads.

coding (excerpt)

MUNPANEL

Group Project - Team Leader

github.com/MUNPANEL/munpanel_v1

An all-in-one Model United Nations platform for high school students with 2,000+ registered users
Stack: PHP (30,000+ lines), Laravel, MySQL, VMware ESXi, Sentry, etc.

MessageOnTap API

Part of larger Project, Main Author

github.com/MessageOnTap/MessageOnTap_API

IPC library, powering plugins for MessageOnTap, a development framework for personal-data-powered messaging assistants.

Stack: Java, Android

Notes to Keep

Personal Project

github.com/adamyi/notes_to_keep

Export Apple iCloud Notes to Google Keep

Stack: Python

v6dns

Personal Project

github.com/adamyi/v6dns

A DNS Server which enforces local devices to prioritize IPv4 or IPv6.

Stack: NodeJS

golinks

Personal Project

github.com/adamyi/golinks

A Google-like go/ links service integrated with G Suite

Stack: Python, GAE (Google App Engine), Cloud Datastore

sqlite-parser

Personal Project (Fork)

github.com/adamyi/sqlite-parser

SQLite Parser for C++. Forked from sql-parser to address SQLite specific statements

Stack: C++, Bazel

AndroidWechatSQLiteDecrypt

Personal Project

github.com/adamyi/AndroidWechatSQLiteDecrypt

Xposed module and toolchain to decrypt Android Wechat Database

Stack: Java, Android

CrowdAnnotator

Part of larger Project, Main Author

github.com/adamyi/CrowdAnnotator

A general-purpose web-based crowd-sourcing system for text annotation tasks.

Stack: Javascript, Python, MySQL

COMP6843 ASP Challenge

Personal Project

github.com/adamyi/comp6443_asp_challenge

A vulnerable microservice infrastructure, used as an assignment for students in UNSW COMP6843 (Extended Web App Security), 2019 term 1.

Stack: Docker, Python, Golang, PHP

Fury of Dracula

Group Project (of 2)

github.com/adamyi/fury_of_dracula

An AI for a game similar to Scotland Yard, the hide-and-seek game. This was the top performer AI in UNSW COMP2521 (Data Structure and Algorithms) (the seeker AI was significantly better performing than the second place).

Stack: C

SalesSystem

Group Project - Team Leader

git.yiad.am/cs1531-mcdonalds

An online ordering system for an imaginary burger store as uni assignment, but we designed it to be flexible and configurable enough that it can be used as a general-purpose Sales System. We didn't change a single line of code besides configuration for the "requirement changes" as part of the assignment, and got full mark for that assignment.

Stack: Python, Docker, MySQL