



Yin Yan

Curriculum Vitae

About Me

- Ph.D. Candidate (expected graduation date in May 2018) with 5 years research experience in mobile system and real-time OS.
- including *type inference*, *garbage collection*, *multi-tasking*, *concurrency*, *etc.*
- Software Engineer with 3 years of professional experiences in developing enterprise applications using Java(TM) Enterprise Edition (Java EE), and related technologies, including *JPA*, *JMS*, *Spring Boot*, *Hibernate*, *etc.*
- Understand fundamental concepts of distributed system, such as *liveness*, *consistent hashing*, *availability*, *consensus*, *partition*, and *scalability*.
- Hand-on experience with architecting distributed systems with high-volume requests using *Memcached*, *Cassandra*, *MySQL sharding*, *etc.*
- Professional in object-oriented programming with various design patterns.
- Understand software development lifecycle and experience with Scrum and the continuous integration.

Contact Information

✉ Gassa0617@gmail.com

☎ (716) 545-3819

✉ gassa.yy

🌐 https://goo.gl/YE7i3A

Home Address

📍 286 Wellington AVE

Buffalo, NY, 14223

Programming Languages



Education

2013 - now Doctor of Philosophy in Computer Science

University at Buffalo, State University of New York

Advisor: Lukasz Ziarek

PhD Thesis: "RTDroid: A Real-Time Solution on Android"

2011 - 2013 Master of Science in Computer Science

University at Buffalo, State University of New York

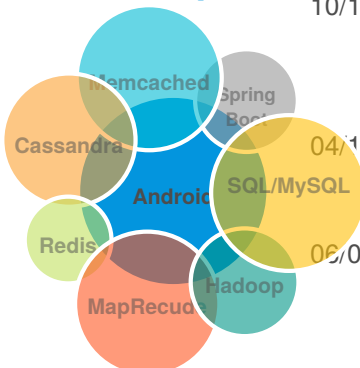
Advisor: Steve Ko

Master Thesis: "Performance Evaluation on A Shared Memcached Cluster Between Multiple Clients"

2004 - 2009 Bachelor of Engineering in Software Engineering

Beijing Information Science and Technology University, Beijing, China

Other Techniques



Research and Professional Experience

10/16 - 03/17 Research Intern

Data61/NICTA, Australia

Extended existing libraries on seL4 for the runtime implementation of FijiVM, including the support of multi-threading, synchronization and memory management.

04/12 - 05/13 Part-time Developer

Core101 LLC, Buffalo, NY, USA

Utilized existing tools and programming frameworks to build mobile- and web-based applications for client's requirements.

06/08 - 07/11 Intern/Full-time Software Engineer

EGGsist LTD, Beijing, China

Designed and implemented RESTful APIs to simplify the integration of company's products and other open source projects.
Refined the workflow of the continuous integration of product development and release management by using Jira and Jenkins.

06/05 - 06/07 Part-time Developer

TRS Information Technology Co. LTD, Beijing, China

Built frontend services for the content management system using Java Servlet, JSP, HTML, CSS, and Javascript.

OS Preference

GNU/Linux ★★★★★

MacOS ★★★★★

Windows ★★★★★

Languages

Chinese ★★★★★

English ★★★★★

Hobbies

Basketball

Fishing

Hiking

Biking

Photographing

Selected Publications

1. Real-Time Android with RTDroid

Y. Yan, S. Cosgrove, V. Anand, A. Kulkarni, S. H. Konduri, S. Y. Ko, and L. Ziarek.

In Proceedings of the 12th annual international conference on Mobile systems, applications, and services, 2014.

2. RTDroid: A Design for Real-Time Android

Y. Yan, S. Cosgrove, V. Anand, A. Kulkarni, S. H. Konduri, S. Y. Ko, and L. Ziarek.

IEEE Transactions on Mobile Computing, 15(10):2564–2584, 2016.

3. Making Android Run on Time

Y. Yan, K. Dantu, S. Y. Ko, J. Vitek, and L. Ziarek.

In Proceedings of the 17th International Workshop on Mobile Computing Systems and Applications, 2016.

4. Using A Multi-Tasking VM for Mobile Applications

Y. Yan, C. Chen, K. Dantu, S. Y. Ko, and L. Ziarek.

In Proceedings of the 17th International Workshop on Mobile Computing Systems and Applications, 2016.

5. Real-Time Sensing on Android

Y. Yan, S. Cosgrove, E. Blanton, S. Y. Ko, and L. Ziarek.

In Proceedings of the 12th International Workshop on Java Technologies for Real-time and Embedded Systems, 2014.

6. jUAV: A Java Based System for Unmanned Aerial Vehicles

A. Czerniejewski, S. Cosgrove, Y. Yan, K. Dantu, S. Y. Ko, and L. Ziarek.

In Proceedings of the 14th International Workshop on Java Technologies for Real-Time and Embedded Systems, 2016.

Selected Projects

02/13 - now **RTDroid**

<https://rtdroid.cse.buffalo.edu>

RTDroid provides real-time capabilities on Android with bounded response times. It is designed for mobile applications with timing constraints, e.g., robotic control and health monitoring applications. It has a separated software stack which consists of a customized RT-Linux kernel, a real-time JVM (FijiVM) and extended real-time programming models. The runtime implementation of RTDroid uses on-stack memory management to avoid unexpected pauses from traditional garbage collection and a set of communication channels for data sharing and synchronization.

02/15 - now **jUAV**

rtdroid.cse.buffalo.edu/content/juav/

jUAV is a Java-based Autopilot application for Unmanned Aerial Vehicle derived from open source drone system, named Paparazzi UAV. It simulates a quad drone and enables on-the-fly interactions between a physical simulator and the autopilot control application.

12/11 - 06/12 **Performance Evaluation on A Shared Memcached Cluster Between Multiple Clients**

Evaluated throughputs and latencies of variant setup of Memcached cluster with multiple web server clients, e.g., network, number of replicas.

02/10 - 05/11 **Poli Supermarket**

www.gruppopoli.it/

An web application for Poli Supermarket with millions customers, the web application contains customer management, order management, inventory management and etc., and requires integration with legacy softwares.