

# XINYU MA

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## EDUCATION

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### University of California, Los Angeles

Ph.D., Computer Science, School of Engineering

*September 2018 - Present*

GPA: 3.892

### Kyoto University

Master, Applied Mathematics and Physics, School of Infomatics

*April 2018 - September 2018*

(dropout)

### Beijing Institute of Technology

Bachelor of Science, Software Engineering, School of Software.

*September 2013 - June 2017*

GPA: 92.12 (*first place*)

## EXPERIENCE

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### Google, LLC

*Software Engineering Intern*

June 2020 - September 2020

*Sunnyvale, CA*

- Worked on VM representations in Kubernetes in GKE Networking team.
- Drafted a proposal and implemented a proof-of-concept demo.

## ACHIEVEMENTS

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- 2017 ACM-ICPC World Final 57th Place
- 2016 ACM-ICPC Asia Regional Hong Kong Division Second Runner-up
- 2016 ACM-ICPC Asia Regional Shenyang Division Golden Medal (3rd)
- 2016 RoboCup China Open Middle Size League Science Challenge 3rd Place

## PROJECTS

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### python-ndn (in-progress)

An NDN library written in Python 3. Compared to old PyNDN2, it has smaller code size, more friendly API and better support for AsyncIO.

### NDN Lite Forwarder (active)

Designed and implemented the forwarder part for NDN Lite, an implementation of NDN Stack for home IoT scenarios. Made NDN-Lite into a package for POSIX operating systems. The forwarder runs more than 10 times as fast as NFD.

### RISC-V Vector Extension in Gem5

This is a course project for Computer Architecture. We modified gem5 simulator to support a subset of RISC-V vector extensions draft in system-call emulation mode. We also wrote some testing assembly & C code which can be run on a bare metal machine for evaluation.

### Graph Isomorphism

Implemented a graph isomorphism detection algorithm based on Branch and Bound. It can output a canonical presentation of a colored graph, where two isomorphic graphs have the same canonical form.

### RoboCup Ball Detection

Proposed a math model for color threshold based ball detection in RoboCup Middle Size League. Implemented a program to tune the parameters semi-automatically.

## TEACHING

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**CS131: Programming Languages**  
University of California, Los Angeles

*September 2019 - June 2020*  
Teaching Assistant

## SKILLS

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- **Programming Language:** Python, Go, C++, Assembly, Common Lisp
- **Theoretical Computer Science:** Graph Theory, Data Structure, Algorithm, Networking
- Familiar with Google Cloud and Kubernetes.
- Experienced in debugging and profiling.
- Highly motivated and good at learning new things.
- Ability to work individually and in group.