# **Zheng Luo**

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#### Education

## M.S. in Computer Science at UC San Diego

USA

Sept. 2018 - Dec. 2019

B.E. in Computer Science at Shanghai Jiaotong University China

Sept. 2014 - Jun. 2018, GPA 3.7/4.3 @ Top 30%

Relavant coursework: Computer Architecture, Computer Networks,

Database, Operating System

### Work Experience

# Dev Intern at Pygmal Technologies

China

Feb. 2017 - Jan. 2018

- Developed a desktop environment for VR devices and a CPU-based realtime ray tracer with Chromium Embedded Framework (CEF), DirectX, Embree
- Used perf and cachegrind to analyze and optimize performance through manual vectorization/precomputation/interface refactor/class layout optimization
- Improved the fps of VRDE by 60% and made the ray-tracer render scenes in 720p/60fps

# Dev Intern at Ant Financial, Alibaba Group

China

Jun. 2016 - Sept. 2016

- Contributed to an internal Docker-based container platform, Ant Container Service
- Developed an orchestration module similar to docker-compose in Go for single machine with Docker API
- Integrated module into the production system, handling the lifetime of over 1k containers on financial cloud

#### **Projects**

#### Go AI

Leader of a group of four, class project

- Implemented a Go AI based on AlphaGo's first paper with UCT tree search and a policy neural network
- Wrote board class, UCT search as well as communication module with Protobuf-based serialization in C++ and Python
- Beated Facebook's DarkForest(1st ver.) and GNU Go

## Compile-time Static Map in C++ for Boost library

Individual contribution to open-source project, as a proposal for Boost GSoC 2017

 Implemented a static\_map class for C++ Boost library, which supports compile-time lookup

#### SJTU Open-Source Mirror Site

Organization open-source project

- Developed the frontend/backend/infrastructure of a mirror site from scratch
- Implemented the syncer in Go, which sent logs to ELK stack at logz.io and collected metrics into Promethesus. Errors in logs are monitored and reported to a Telegram channel automatically
- Wrote the response webpage in Vue as an SPA with Bulma library
- Served over 150k+ requests every day with >99.9% availability

#### **Patents**

Luo, Zheng et al. 2016. An Analysis on Academic Big Data Based on Paper References. CN Patent Application CN105808729A.0, filed March 2016. Patent Pending.

#### Skills

Production-level C++14/17 and Go Linux system programming Micro-optimization and profiling Docker usage and implementation