# **HUI LI**

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### **EDUCATION**

Duke University, Durham, US

08/2017-05/2019

■ Master of Engineering in Computer Engineering

GPA: 3.73

■ Core course: Performance Optimization & Parallel, Systems Programing, Software Engineering, Engineering Robust Server Software, Advanced Algorithm

Baylor University, Waco, US

08/2014 - 12/2016

■ Bachelor of Engineering in Electrical and Computer Engineering

GPA: 3.61

■ Dean's Academic Honor List

#### **SKILLS**

Languages: C/C++, Python, Java, HTML5

Technologies: Unix, High Concurrency, Django, PostgreSQL, MongoDB, git, Docker, CUDA, Android Studio

#### **WORK EXPERIENCES**

Microfun, Beijing, China

06/2018 - 09/2018

C++ backend developer Intern

- Designed, developed and tested a high-performance HTTP server to replace former framework h2o for the further development and higher performance
- optimized thread utilization based on Atomic, Kqueue and Asynchronized I/O which is the different with the normal framework using Non-block I/O
- Increased the performance largely using thread pool and memory pool as the strategy
- Increased the robustness to failures with RAII and Exceptions
- Deployed the server into a container with Docker for the ease of transportation and isolation

#### Baylor Research and Innovation Collaborative, Waco, US

07/2016 - 09/2016

Undergraduate Researcher

- Modeled four-dots Quantum-dot Cellular Automata molecules in MATLAB for simulation
- Improved the program in CUDA and ran on GPU for 5x speed up

## **SELECTED PROJECTS**

Mini Amazon, Duke University

05/2018 – 06/2018

- Built the Mini Amazon website frontend based on Django and Python
- Implemented the Backend in C++ for high concurrency
- realized the communication between the front and back end using Google Protocol Buffer for the ease of communication
- Replaced PostgreSQL with MongoDB for the flexibility of editing the attributes for the product

## **Rootkit,** Duke University

05/2018 - 06/2018

- Implemented a Rootkit in C++ which is designed to hide the intrusion to a system as well as to maintain privileged access
- The Rootkit can hide the malicious program, the related directory under /proc, the modifications made to the system and kernel module installed

#### ProjectU Android-APP, Duke University

- Built a project management Android app for software developers with agile development as default template in Java and Android Studio
- Implemented the contact list and real-time group chat feature using Google Firebase as backend