HUI LI

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EDUCATION

08/2017-05/2019 **Duke University**, Durham, US Master of Engineering in Computer Engineering GPA: 3.73 Baylor University, Waco, US 08/2014 - 12/2016 ■ Bachelor of Engineering in Electrical and Computer Engineering GPA: 3.61 ■ Dean's Academic Honor List University of Electronic Science and Technology of China, Chengdu China 09/2012 - 07/2014 GPA: 3.2

■ Bachelor of Engineering in Biomedical Engineering

SKILLS

Programming Languages: C/C++, Python

Technologies: Unix, High Concurrency, PostgreSQL, MongoDB, Django, CUDA

WORK EXPERIENCE

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 which caused Bug when dealing with high concurrent request
- The server is based on Atomic, Kqueue and Asynchronized I/O to reduce the CPU block time which is the different with the normal framework using Non-block I/O

Baylor Research and Innovation Collaborative, Waco, US

07/2016 - 09/2016

Undergraduate Researcher

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

SELECTED PROJECTS

Mini Amazon, Duke University

05/2018 – 06/2018

- Built a Mini Amazon website based on Django and Python
- Implemented the Backend in Golang for high concurrency
- designed the protocol with the front end using Google Protocol Buffer for the ease of communication
- Replace PostgreSQL with MongoDB for the flexibility of editing the attributes for the product

Stock Exchange Matching Server, Duke University

03/2018 - 04/2018

- Implemented TCP connection using Boost::asio library for reliable communication
- Designed the database schema and interacted with PostgreSQL using libpqxx
- Handled multiple concurrent requests effectively using thread 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

HTTP Caching Proxy, Duke University

02/2018 - 02/2018

- Wrote a HTTP caching proxy using C++ in Linux environment
- Increased the performance with multiple thread programming
- Deepened understanding in HTTP and Cache

Linux Command Shell, Duke University

11/2017 - 12/2017

- Wrote a Linux command shell in C++ which can process commands
- Implemented multiprocessing pipelines to handle multiple commands