**HUI LI**

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**EDUCATION**

**Duke University**, Durham, US 08/2017- 05/2019

* 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

* Bachelor of Engineering in Biomedical Engineering GPA: 3.2

**SKILLS**

**Programming Languages**: C/C++, Python

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

**WORK EXPERIENCE**

**Microfun,** Beijing, China06/2018 - 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 theory
* Improved the program in CUDA and ran on GPU for 5x speed up

**SELECTED PROJECTS**

**Mini Amazon,** Duke University05/2018 – 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