

# HUI LI

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## EDUCATION

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<b>Duke University</b> , Durham, US	08/2017- 05/2019
■ Master of Engineering in Computer Engineering	GPA: 3.80
<b>Baylor University</b> , Waco, US	08/2014 - 12/2016
■ Bachelor of Engineering in Electrical and Computer Engineering	GPA: 3.61
■ Dean's Academic Honor List	
<b>University of Electronic Science and Technology of China</b> , Chengdu China	09/2012 - 07/2014
■ Bachelor of Engineering in Biomedical Engineering	GPA: 3.2

## SKILLS

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

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

## WORK EXPERIENCE

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<b>Microfun</b> , 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	
<b>Baylor Research and Innovation Collaborative</b> , 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

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<b>Mini Amazon</b> , 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	
<b>Stock Exchange Matching Server</b> , 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 RAIL and Exceptions	
■ Deployed the server into a container with Docker for the ease of transportation and isolation	
<b>HTTP Caching Proxy</b> , 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	
<b>Linux Command Shell</b> , Duke University	11/2017 – 12/2017
■ Wrote a Linux command shell in C++ which can process commands	
■ Implemented multiprocessing pipelines to handle multiple commands	