Bernard **Kim**

SOFTWARE DEVELOPER
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Education

University of Washington   *Seattle, WA*
B.S. IN COMPUTER SCIENCE AND ENGINEERING   *Jun. 2018*

- GPA: 3.44/4.0
- Coursework:

Compiler Construction   Computer Networks   Computer Security   Data Management
Embedded Systems   Distributed Systems   Machine Learning   Operating Systems

Projects

LOL Chat
WEB APPLICATION FOR TEXT/VOICE CHAT   *Nov. 2018 - Dec. 2018*

- Built a simple chat server using Node.js and Socket.io.
- Implemented voice chat using WebRTC and deployed a coTURN docker image.

PTrade
WEB APPLICATION FOR TRADING STOCKS WITH A MOCK PORTFOLIO   *Jul. 2018 - Oct. 2018*

- Developed a RESTful API in Go to handle user transactions stored in a MySQL database.
- Created scheduled tasks to pull the latest stock market prices and log user data for analytics.
- Font-end built using React.js

KV Store
DISTRIBUTED KEY VALUE STORE   *Mar. 2018 - Jun. 2018*

- Built a highly available, scalable, fault tolerant key-value store using Java .
- Implemented at-most-once RPC semantics to prevent duplication.
- Implemented the multi-Paxos algorithm for state machine replication.
- Partitioned the key set to improve system throughput.

MiniJava Compiler
COMPILES MINIJAVA CODE INTO X86-64 ASSEMBLY CODE   *Mar. 2018 - Jun. 2018*

- Worked in a team of two to build a MiniJava compiler using Java .
- Implemented the scanning and parsing phase utilizing JFlex/CUP java packages.
- Implemented semantic checking and code generation using ASTs.

XK Operating System
UNIX-LIKE OPERATING SYSTEM BUILT ON TOP OF XV6.   *Sep. 2017 - Dec. 2017*

- Implemented a handful of system calls.
- Enabled the operating system to run multiple processes.
- Added a relatively full-featured virtual memory system (LRU swapping, mmap, copy-on-write).

Skills

Tools & Technologies

- Java   C   Python   Go   JavaScript   React.js   Node.js   SQL   Heroku   Git   Unix