Kenny Hua Zheng

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Education

University of California, Los Angeles
B.S. in Computer Science
Expected graduation: Dec. 2020

Coursework

Operating System Principles, Computer Network Fundamentals, Computer Security, Database Systems, Computer Systems Architecture, Computer Graphics, Algorithms & Complexity

Experience

CNC Software, Inc. Jun. 2018 — Sep. 2018
Software Engineering Intern

- Worked on Mastercam, the world's most widely used computer-aided manufacturing (CAM) software.
- Improved regions of C/C++ code base by replacing use of old toolpath entity retrieval API with new interface which provides more robust memory management to reduce memory leaks and improve application performance.

Symantec Jun. 2019 — Sep. 2019
Software Engineering Intern

- Worked on the Windows client for Norton Secure VPN.
- Modified filtering and source tree of the Visual Studios project to remove inconsistencies in structure.
- Wrote test cases and performed code refactor and manual testing of the Norton Secure VPN application.
- Researched rival VPNs for BitTorrent support to help determine how the team will handle torrenting in future epics.

Projects

China Taste (MongoDB, Express, jQuery, Node.js) Aug. 2018 — present

- Online ordering platform for local restaurant with user account system to store customer data.
- Designed login system with standard features such as password reset and email verification.
- Created dynamic frontend UI using jQuery and Bootstrap.
- Implemented backend using Node.js and Express to manage login sessions, validate user input, hash passwords (using bcrypt), and send customer data to MongoDB Atlas cloud database.

Fish Farm (JavaScript) Nov. 2018 — Dec. 2018

- Aquarium simulation game where the objective is to earn money by raising different kinds of fish.
- Written using object-oriented design principles with separate classes for fish, plant, fish food, and shader objects.
- Used WebGL to custom design the fish, which were rendered using simple primitives (e.g. spheres, cubes) with various matrix transformations applied to them to produce the desired shapes/animations.

Tetris (Verilog) Feb. 2018 — Mar. 2018

- Worked with a partner to create a Tetris application which can be uploaded to and run on Digilent FPGA boards.
- Mapped current (falling) block and placed blocks data to two 150-bit registers which represent the 10 x 15 board.
- Updated registers by performing bit manipulation (e.g. shifting to move falling block left/right, right shifting by 10 to move block down a row, ANDing placed and falling block registers to detect collisions, etc.).

Technical Skills

- Languages: C/C++, JavaScript, Python, SQL, HTML, CSS, Verilog, Bash, PHP
- Frameworks/Libraries: jQuery, Express, React.js, Next.js, Bootstrap
- Other: Node.js, Linux, Unity, MongoDB, Subversion, Perforce, Git

Awards

- UCLA Achievement Scholarship recipient
- Dean's Honor List - Winter 2018