Kenny Hua Zheng

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Education

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

Coursework

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

Experience

CNC Software, Inc. (C/C++) Jun. 2018 — Sep. 2018
Software Engineering Intern

- Worked on Mastercam, the world's most widely used computer-aided manufacturing (CAM) software.
- Modernized regions of 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.
- Examined/fixed defects in application as well and participated in standard practices such as peer code reviews.

Projects

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

- Developed an 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.

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 using 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.).

Chess (C++) Dec. 2016 — Mar. 2017

- Created a chess program that utilizes a grid system for selecting moves and features text-based graphics.
- Designed application using object-oriented principles, with a Piece base class from which subclasses representing various pieces inherit basic functionality.
- Implemented a single player mode with a simple chess computer that recursively calculates optimal move using minimax in addition to a two player mode.

Bruin Navigator (C++) Feb. 2017 — Mar. 2017

- Created a mapping program that generates directions and calculates the shortest route between any two addresses within the Westside region of Los Angeles.
- Built application using object-oriented graph-based implementation with street objects representing edges and location objects representing vertices.

Technical Skills

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

Awards

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