Xuesen Cui

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EDUCATION

University of California, Los Angeles
Expected Mar. 2020

B.S. in Computer Science and Engineering.

Selected Coursework

Artificial Intelligence, Algorithms and Complexity, Computer Organization, Data Structure, Formal Languages/Automata, Logic Design of Digital Systems, Machine Learning, Operating System.

PROJECTS

Toy Shop Dapp, Solidity
Jan. 2019—Feb. 2019

- Developed a Dapp on Ethereum main network which enables direct interaction between end users and the providers;
- Implemented a Smart Contract using Solidity allows users buy toys using Ether;
- Implemented user interface using Web3.js to interact with the Smart Contract based on its contract address and contract ABI.

myMini Blockchain, Python
Dec. 2018—Jan. 2019

- Developed a Blockchain client that accepts transactions and allows users to mine new Blocks uisng SHA-256 hash;
- Used the Longest Valid Chain rule to reach Consensus to ensure each node has the correct chain;
- Used Postman as HTTP client to enable each node interacts with the Blockchain network.

Sokoban Game AI, Lisp
Sept. 2018

- Used Lisp to implement a program to optimized the steps of playing Sokoban Game;
- Adopted the A* algorithm to reduce the search depths and branch factors of the program;
- Achieved almost 10 times faster efficiency than regular searching methods.

Cucumber Tower, Verilog
Mar. 2018—Apr. 2018

- Developed a single-player FPGA game allows players place different height of cucumbers in a 5x5 matrix to finish the numerical puzzle;
- Implemented a debouncer to allow players control the cucumbers moving around using gamepad.
- Loaded eighteen different images on LCD display to show cucumbers, rounds, scores and logos;

Ice Man, C++
Sept. 2017

- Developed a game users play as a miner to dig through earth and get oil and golds as well as fight against enemies and get points;
- Implementations based on FreeGLUT toolkit library;
- Optimized the path of enemies by using Dijkstra shortest path algorithm.

TECHNICAL SKILLS

C/C++, Python, Solidity, Verilog, Dart, Lisp, Matlab
EMACS, Linux, Git, Shell, Bash

EXTRACURRICULAR ACTIVITIES

Tutoring:: Upsilon Pi Epsilon Honor Society
Volunteer Events:: Alpha Gamma Sigma Honor Society