Hesen Zhang

Objective: Full-Time Software Engineer

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Education

University of Southern California, Los Angeles, CA May 2016
Master student in Computer Science

University of Liverpool, Liverpool, United Kingdom May 2014
Bachelor Degree of Electronics Engineering

Skills

Programming Languages: C, C, Python, Java, Swift, C#, JavaScript, PHP, HTML&CSS, Matlab
Hardwares: Raspberry Pi, Intel Galileo, Arduino, FPGA(Altera DE2), Nao robot, Lego Robot

Experience

Student Worker in USC Robotic Embedded Systems Laboratory October 2015 - April 2016
- Implemented Path Planning with Dead-End of Underwater Robots
- Helped organizing and built official website for Southern California Robotics Symposium 2016
- Maintained infrastructural codes including related utilities and functions

Projects

Stock Market Viewer, Los Angeles, CA May 2016
A full stack solution with PHP on AWS, and web(JQuery, Bootstrap) and mobile(Swift) applications
- Implemented features including auto-complete search, displaying Detail Stock Quote, Historical Interactive Chart and News, share to social media(Facebook Application), and personal Favorite List
- Gathered and organized other sources by AJAX on server side, and provided own JSON APIs

StartCraft AI Development, Los Angeles, CA Feb 2016 - April 2016
A TeamWork Project based on BWAPI (C++), ranked Top 5 in Student StarCraft AI Tournament 2016
- Implemented APIs by analyzing the map and providing optimal decisions and positions
- Implemented Micromanagement including squad formation, hit and run, damage concentration

Stochastic Path Planning for Underwater Robots, Los Angeles, CA Dec 2015 - April 2016
A Linux simulation software developed by C++, Displayed by OpenGL User Interface
- Implemented Markov Decision Processing Model and Value Iteration to calculate an optimal path
- Developed Stochastic Planning Model based on Markov Chain Transition Matrix
- Estimated Mean First Passage Time to Detect and Estimate Dead End in the given ocean model

Weenix Kernel Development, Los Angeles, CA April 2015
A Unix-Like Operating System developed by C, running on top of QEMU, Ubuntu
- Implemented kernel Threads and Processes lifecycle as well as Bootstrap, Scheduler and Mutex
- Developed Virtual File System with polymorphism design property and File-Related System Calls
- Managed Virtual Memory including Page Fault Handler and VM-Related System Calls