Jeffrey Hsieh

Contact

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GitHub:
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Personal Website:
https://jhsie007.github.io

Education

Bachelor of Science
Computer Science
University of California, Riverside

Technical Skills

Programming Languages:
C++/C#/C
Python
Java/JavaScript
Bash
Assembly

Programming Environments:
Linux (Vim and Emacs)
GitHub
Unity
LaTeX
Cloud9

Hardware Developments:
Arduino
mbed
Atmel
Soldering Techniques

Art Designing:
Paint Tool SAI

Language:
English
Mandarin Chinese
Taiwanese

Relative Coursework

Artificial Intelligence
Database
Networking
Security
Embedded Systems

Projects/Experiences

Research: Lead Computer Engineer · September 2015 — Present
Dr. Kawai Tam, Riverside CA

- Designing a smart home system with State Machines and C/C++ language, which provides households with essential resources such as water and dryers using clean solar energy.
- By leading the research team as the head computer engineer of the Integrated Appliance System (IAS) project, the project is implemented and tested in actual Riverside households
- The program precisely captures temperature data to regulate the state machine, while operating inline-fans to condition temperature and humidity. However, the tradeoff between program cost and energy saved is debatable.

Web Development: Hi I'm Jeffrey! · June 2015 — Present
GitHub, Personal Project

- Developing a personal website using HTML, CSS, Java/JavaScript. This includes some of my individual photography contributions.
- Designing organized container layout and efficient animation scripts to improve site performance in load and run time.
- Lastly, the site showcases all my project logs, social medias, interests in life, and personal art/designs.

Robotics: Micromouse · November 2014 — April 2016
IEEE, Riverside CA

- Modeled and programmed a miniature robot to perform searching tasks dedicated to solve maze problems in matrix structures.
- Utilizing phototransistors to retrieve essential information about the ambiguous environment and solving a path with modified priorities on shortest path algorithms.
- Calibrating the robot to increase precision for analyzing analog noise and error offset. This allowed my mouse to deduce all mazes with accurate and deterministic decisions.

Networks: Geographic Mapping · January 2016 — March 2016
University of California, Riverside CA

- Enhanced the functionality my previous robot via USART techniques to use a client/server information exchange system.
- Enabled long-range communication for my robot using LAN, which permitted the external end-device (laptop) the ability to manipulate the data and visualize robot's vision into third-person perspective. Thus, reducing my needs to give the robot some constant, physical attention.

Unity: Rin · October 2016 — Present
RPG, Personal Game Project

- Creating a role-playing game using C# and unity engine. This features an environment for players to create a world of their own.
- Understanding object management to enhance game performance.

Awards/Presentations

UC Micromouse Competition: 3rd Place Winner *(Nov. 2014 – Apr. 2016)*
San Diego Hackathon: Virtual Creator, Unity Game *(Oct. 2016)*
Citrus Hackathon: CNC, Unity Game *(Oct. 2016)*
Cutie Hackathon: Acmbot *(May 2014)*