Xiangyu (Johnny) Wan

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EDUCATION

University of California, Los Angeles
BS, Computer Science Major Jun. 2022

- GPA: 3.95/4.0
- Relevant Coursework: Intro to Computer Organization, Software Construction Lab, Operating System Principles, Logic Design of Digital System, Introduction to Algorithms and Complexity, Programming Languages, Introductory Digital Design Laboratory, Introduction to Computer Graphics Introduction to Machine Learning, Introduction to Formal Languages and Automata Theory

EXPERIENCE

BSH Home Appliances, Nanjing, People's Republic of China Jul. 2019 - Sep. 2019
Software Development Intern

- Developed data transmission and abstraction and experiment interface for a new multi-purpose kitchen sensor matrix and deployed the software on an embedded system. Implemented immediate display and logging of sensor data, real-time data analyzation, and test simulation. Further development is enabled by high level of modularization. The sensor matrix, deployed in kitchen, enables alarm against burnt food, hence ensures safety and taste of cooking.
- Designed and performed experiments on anti-burnt feature of kitchen sensor matrix. These experiments allowed our team to generate a prototype machine-learning model.
- Developed test report integration tool used with reports generated by automatic test tools and set up automatic database updating and display on internal web server. This shared tool enhances software development teams' ability to follow up with project progress, through integrating multiple sources of reports, and enabled quick reaction to emergency situations.

University of California, Los Angeles, CA, United States Jan. 2020 - Present
Computer Support Technician

- Troubleshooting software and hardware problems for on campus employees.
- E-mail system operations including modifying accounts and editing mail lists.
- Installment of computers for on campus employees.

SKILLS

- Technical skills: proficient in C/C++ and Python; proficient in algorithm designing and optimization; proficient in cross-platform development with Linux and Windows using Git, GitHub, Gnu make and VS code; proficient in automated SQL operation design with Python; intermediate Unity programming skill; experienced in full-stack design with Node.js, react and express; experienced in data structure/algorithm design and analyzation; experienced in working with embedded systems including Raspberry, Beaglebone, and Arduino.
- Teamwork: effective in understanding and breaking down task requirements with team members, communication with team in solution seeking, and keeping progress updated through regular reports; effective in planning and dividing software API with team members.
- Language: fluent speaking of Mandarin and English, elementary German.

PROJECTS

SmallMart, UCLA Spring 2019

- https://github.com/JohnnyXiangyu/CS_32/tree/master/Project%204
- Final project of Intro to Computer Science, a character-wise diff file generator implemented with C++
- Implemented a fixed size hash table.
- Implemented reverse function, which takes a diff file and first file to re-create the second file.

Bookkeeper 2020 - Today

- https://github.com/JohnnyXiangyu/BookKeeper/tree/localhost_gui
- A simple web app built with react, react and MongoDB. It's designed to let users, with identity identified by their accounts, update and review their financial records.
- The whole app is designed as a finite state machine of a single webpage, with state and related metadata stored inside one mother component. Different "pages" are hosted by different child components, mounted and unmounted by the mother component.
- A server side program will regularly fetch and pull from git repository, and both frontend and API node programs are setup to automatically restart on update.

DataAnalysis_GP 2019 - Today

- https://github.com/JohnnyXiangyu/DataAnalysis_GP
- A Python/C hybrid module that provides serial communication, keyboard real-time control, and automatic logging; all components can be customized through user-defined derived classes of original implementation.
- Used to construct lab system for my last summer internship and a Physics lab course I took this year.
- In progress: build a web app that allow user to manipulate devices and conduct experiments, using tools provided by this library, from localhost webpage and/or remote device.

Balance Ball 2020

- https://johnnyxiangyu.github.io/Warenhaus/Balance_Eins_Sieben_Fier/
- Final group project for CS 174A, computer graphics.
- I implemented the ball's physics simulation, including gravitational force, elastic collision, and rolling on a frictionless surface, using matrix operations supported by WebGL library.
- Collaborated with team mate to animate ball's rolling with texture operation.

Kyklos 2020

- https://smudge12.itch.io/kyklos
- 2D side-scroller action game made using Unity2D during a 72-hour game jam held by ACM Studio, UCLA.
- I implemented the player controller and a skill system that enables quick new skill implementation with an effect interface to allow skill to take effect on the player without editing the core player control scripts.
- Cooperated with teammates to create one of the boss fights, writing scripts that allow the boss to charge at and throw the player.

Ramen For Two 2020

- https://volcanogirl.itch.io/ramen-for-two
- Visual novel created using Unity2D in a 48-hour game jam held by ACM Studio, UCLA.
- I implemented infrastructures including dialogue history, settings, image container, and scene manager.

HONORS & AWARDS

- Dean's Honors List Dec. 2018 - Today