Jingyu (Joy) Wang

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EDUCATIONS

Baruch College | M.S., Information System   Expected Dec 2024
New York University | M.S., Computer Engineering | GPA: 3.63   May 2023
Relevant Coursework: Computing System Architecture, Machine Learning, High-Speed Network, Data Center and Cloud Computing
Nanjing University of Posts and Telecommunications ("NJUPT") | B.S., Information Security | GPA: 3.59   June 2021
Relevant Coursework: Data Structure and Algorithm, Operating System, Object-Oriented Programming, Web Development

TECHNICAL SKILLS

Java, C++/C, Python, HTML, CSS, JavaScript, PHP, Swift, Git, Servlets, Spring, MySQL, SQLite, Bootstrap, JQuery, OpenCV, Numpy, Pandas, TensorFlow, Docker, Wireshark, NS-3 Network Simulator, AWS, AndroidStudio, Distributed System, Windows, Linux

EXPERIENCE

VisionX LLC | San Jose, CA | Intern, Software Engineer   July 2023 - Present
- Developed a missing detection system utilizing **Python**, **OpenCV** and **segmentation models** to effectively identify and detect missing items on the shelves, assisting the robot's restocking operations.
- Optimized the system using **AI** and **computer vision** technologies, especially **YOLO**. Increased its accuracy by 30%.
- Assisted to develop, evaluate and use the latest machine vision, DL/ML technologies for AI applications.

NYU High-Speed Networking Lab | Brooklyn, NY | Student Researcher   April 2022 - Dec 2022
- Redesigned a congestion control scheme based on Priority-Based Flow Control (PFC), which can **solve the deadlock problem** caused by burst flow in PFC.
- Implemented a switch model that provides in-switch transmission and **virtual queues(VOQ/VIQ)** simulation by **C++** in **NS-3 Network Simulator** which could not support this function before.
- Debugged a bug which haunted others for weeks to make a program able to be ported to other machines.
- Collaborated with a team of six, applying perfect communication and tasks division to **halve the time it needed**.

PROJECTS

Collection of Poker games | Java, Swing, SQLite, AWS   Fall 2022
A game allowing players to choose different kinds of poker games with standalone and online playing modes.   **github**
- Built **network communication** between clients and a server, making it possible for players using different servers to play games with each other at the same time in online mode.
- Developed a **login and registration system** with a database using **SQLite** where can also record players' points.
- Implemented **multi-thread** in games to allow users playing with computers when they choose standalone mode.
- Designed games with perfect **code reusability**, object-oriented programming ("**OOP**") and functional User Interface.
- Collaborated with a team of 3, applying best **git** workflow practices to minimize potential merge conflicts.

NJUPT Spider | Python, HTML, CSS, SQLite   Spring 2021
A full-stack, single-page web crawler which can scrape all the URLs a domain contains and store them on the server.   **github**
- Built a webpage which can get domains from users' input, show crawler results and **interact with the backend**.
- Developed a backend web crawler program, which can **invoke the frontend webpage**, in Python.
- Implemented **b/s architecture**, used **database** to **avoid duplication** and store the crawler results as log files.

Student Association Website Home Page | HTML, CSS, JavaScript, bootstrap, jQuery   Fall 2018
Elegant home page built for NJUPT-SAST's website, introducing this student association in a gorgeous way.   **demo** | **github**
- Built **interactive web pages** for the association by **JavaScript** and **Bootstrap**, highly improved user experience.
- Implemented **adaptive design** to the web page to make the website perform well on different kinds of devices such as mobiles, tablets and computer monitors.
- Achieved various web page effects such as carousel, image scrolling by using **multiple front-end languages.**

COMMUNITY & LEADERSHIP

Peer Education Department, Red Cross Society of NJUPT Students' Branch | China   Sept 2018 - Aug 2019
Department Leader
- Led a 20+ members team, organized 10+ outdoor activities and 50+ presentations which totally served 1000+ visits.
- Operated a WeChat public account and posted articles about peer education with 200+ daily visits.