Jingyu (Joy) Wang

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EDUCATIONS

New York University | Master of Science, Computer Engineering | GPA: 3.61 Expected May 2023

Relevant Coursework: *Computing System Architecture, Machine Learning, High-Speed Network, Cloud Computing*

Nanjing University of Posts and Telecommunications | Bachelor of Science, Information Security | GPA: 3.59 June 2021

Relevant Coursework: Data Structure and Algorithm, Operating System, Compiler Principle

TECHNICAL SKILLS

Skills: Java, C++/C, Git, NS3, Python, HTML5, CSS3, JavaScript, Numpy, TensorFlow, SQL, AWS, Distributed System

Operating System: Windows, Linux

EXPERIENCE

NYU High-Speed Networking Lab | New York, NY | Student Researcher June 2022 - Present

- Designed a new algorithm based on Priority-Based Flow Control (PFC) to provide a flow control scheme, which is expected to improve the accuracy and sensitivity by more than 20%.
- Implemented a switch model that provides in-switch transmission and virtual queues(VOQ/VIQ) simulation by C++ in **NS3** which could not support this function before.
- Lead a team of three to simulate this new scheme with different network topologies and optimize its performance.

NYU High-Speed Networking Lab | New York, NY | Research Assistant April 2022 - May 2017

- Collaborated with a team of six, applying perfect communication and tasks division to halve the time it needed.
- Debugged a bug which haunted others for weeks to make the program able to be ported to other machines.
- Optimized a new packet scheduling scheme by analyzing its Flow Completion Time(FCT) to find ways to strengthen its competitiveness.

NJUPT Student Association for Science and Technology | China | Student Assistant June 2018 - Dec 2018

- Built interactive web pages for the association's website by JavaScript and highly improved user experience.
- Implemented adaptive design to the web pages to make the website adaptive to different kinds of devices such as mobiles, tablets and computer monitors.

PROJECTS

Adversarial Object Detection system based on Web | Python, HTML, CSS, JavaScript Spring 2021

A system does adversarial attacks to images and shows object detection results of images before and after the attacks

- Implemented a system with YOLOv3 and TOG algorithm which provides 3 different kinds of adversarial attacks.
- Coded a visualization system based on the Web for the deep learning system and the training results.

File encoding and decoding system via various modes based on DES algorithm | Java Spring 2020

Practicing the usage of Data Encryption Standard (DES) after learning cryptography

- Designed a file encoding and decoding system which has over 4 kinds of encryption/decryption modes.
- Developed the system with new classes and functions without using the existing class Cipher.

Multifunction Clock Application | Java Spring 2020

A Java application that works as a clock with functions like timer, alarm clock, calendar and world clock

- Created a desktop clock application that can be used in Windows with Graphical User Interface.
- Developed multiple functions for the clock and used multithreads to let every invoke of these functions work isolatedly.

COMMUNITY & LEADERSHIP

Peer Education Department, Red Cross Society of NJUPT Students' Branch | China Sept 2018 - Aug 2019

Department Leader

- Led a team of 20+ people to do peer education inside and outside the campus.
- Organized 10+ outdoor activities and 50+ presentations about peer education and totally served 1000+ visits.
- Operated a WeChat public account and posted articles about peer education with 200+ average visits.