

Yifan Ni

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EDUCATION

New York University - Tandon School of Engineering, Brooklyn, NY

Pursuing Master of Science in Computer Engineering

09/22 - Current

- ♦ GPA: 3.5/4.0
- ♦ Core Courses: Computer Systems Architecture, Realtime Embedded Systems, Machine Learning

University of Delaware, Newark, DE

Bachelor of Science in Computer Science - Cyber Security Concentration

08/17 - 05/22

- ♦ GPA: 3.3/4.0
- ♦ Core Courses: Algorithm, System Hardening, Network Security, Secure Application Design

PROFESSIONAL EXPERIENCE

State Grid Corporation of China in Hefei

Part-time Cybersecurity Engineer Assistant

07/21 – 08/21

Tested Hacking into Anhui HUILONG CO. LTD with the consent of the company. By using tools such as Nmap, Burpsuite through default port, successfully got the OA root password and login to the OA system.

VMware, Online

Part-time Software Engineer Assistant to xx who works at VMware

07/20 – 07/20

Implemented an html5 “remember and paring” game in Python for mouse interaction to reveal pattern under blocks after clicking with comprehensive use of mouse click event and Python class.

KEY ACADEMIC PROJECT

Texas Hold'em Game

03/23 – 05/23

- ♦ Developed a client-server architecture for a Texas Hold'em Poker game with a Swing GUI in Java. Created a GUI using Swing for the Texas Hold'em Poker game. Allowed players view seat arrangements and their cards, facilitate actions like folding, calling, raising, and checking. On the backend, a robust client-server architecture was established, incorporating multithreading to manage player connections and in-game events. Implemented core game logic following Texas Hold'em rules, including card dealing, tracking game progress.

RISC-V Processor Simulator CSA Final Project

10/22 – 12/22

- ♦ Used Python to implement cycle-accurate simulators of a 32-bit RISC-V processor, both single stage and five stage pipelined. Simply simulating stages of Fetch-Decode-Execution-Memory-Writeback. For five stage pipelined also there are additional control to avoid hazards.

Microbots UD Senior Design Program

09/21 – 12/21

- ♦ Designed an image processing program to track the position and speed of microbots(size in micron) from video/stream of the monitoring camera on the microscope. Tried OpenCV and found it need too much hash power and then turned into trackpy library in Python and successfully tracked the target microbots.

Beatmaker UD CISC474 Group Design

09/21 – 12/21

- ♦ Designed a website based on HTML5 where users can upload or select a set of sounds and create their musical beat. Once the user is satisfied with their beat, they can save their musical creation to an audio file for future reference. The user will queue up different types of sounds in a time sequence and generate a beat where they can export it to a singular mp3 file.

Reverse engineering for iOS program (for self-research use)

07/21 – 07/21

- ♦ Used a jailbroken iOS device, dumped decrypted program files with Frida, in Python environment, from RAM and used IDA to read the assembly language then found MD5 hash check exit point. Changed the binary “EXIT” to “NO OPERATION” to crack the program and modify the program files.

Hardware programming UD CISC210 Final Project

10/19 – 12/19

- ♦ Implemented a simple gyroscope by C on a Raspberry pi with Sensehat. The Sensehat creates a 2x2 block moving around an 8x8 grid of different position on the hat to indicate the incline of the surface after calibrated. Also for different inline the color of 2x2 block will change.

TECHNICAL AND LANGUAGE PROFICIENCIES

- ♦ Programming Language and skills: Python, C, Java; Basic Web design.
- ♦ Proficient using search engines and LLM for solving problems.
- ♦ Bilingual in Chinese and English, Conversational in Japanese.