Nyang Lin Phyo (Ramsey)

(951) 578-7708 | nlphyo.ramsey@gmail.com | Linkedin: https://www.linkedin.com/in/nyang-lin-phyo/

Education

University of Michigan - Ann Arbor (UMICH) **(8/2021- 5/2025)**
College of Engineering, Bachelor of Science in Engineering in Computer Science
Cumulative GPA: 3.7/4

New York University - Tandon **(9/2025- 5/2027)**
College of Engineering, Masters of Science in Computer Science

Relevant Coursework
Data Structures and Algorithms, Computer Vision, Intro to Operating System, Database Management Systems, Intro to Computer Security, Foundations of Computer Science, Web systems, Web Design, Intro to Computer Organization, Data Structures and Algorithms, Discrete Mathematics, Linear Algebra

Programming Skills
C++, C, Java, Python, SQL, HTML, CSS, Javascript, R, Matlab, YAML, Bash
Flask, React, Node.js, Webpack, Docker, AJAX, Jinja2, AWS
SQLite, MySQL, PostgreSQL, MongoDB

Programming Projects

Network file server **(1/2024)**
- Implemented a multi-threaded file server in C++ that listens for incoming connections and processes various file system commands such as reading, writing, creating and deleting files and directories.
- Used socket connections and Boost threads to manage multiple requests from different users.
- Ensured data consistency and thread safety by implementing synchronization across concurrent file operations with shared mutexes.

Search Engine **(8/2023)**
- Implemented a scalable search engine in C++ utilizing information retrieval techniques like TF-IDF and PageRank, along with parallel data processing using Map Reduce.
- Built a RESTful API for serving JSON search results using Flask and SQLite and developed a user interface display using HTML.

Memory Manager **(1/2024)**
- Created a user-level virtual memory pager in C++ that handles memory allocation, page mapping, and eviction using a clock algorithm for both swap-backed and file-backed pages.
- Using page tables for multiple processes, implemented page sharing and page faults by swapping pages in and out of memory as needed.
- Utilized threads, mutexes, and condition variables for concurrent process execution and ensure thread-safe memory operations.

Insta485 **(8/2023)**
- Implemented an Instagram-like website with features such as user authentication, follower/following relationships, and content management (creating, editing and deleting posts) that is deployed to AWS.
- Designed and developed a full-stack website application using Python (Flask), Javascript, REST APIs, AJAX, SQLite, HTML, and JSON, supporting both server and client side dynamic pages.
- Built and documented REST APIs to handle routes for posts, likes, accounts, and comments.

M-Fly **(8/2022 - 6/2023)**
- Collaboratively developed a software in Python for an autonomous plane that integrates multiple machine learning models to autonomously execute computer vision tasks such as mapping out the terrain, object detection, and object classification to deliver payloads onto various targets from a high altitude by utilizing Python's OpenCV, YOLOv7, and PaddleOCR.

Experience

EECS 370 Grader **(8/2023 - 5/2025)**
- Assessed and graded weekly lab reports and homework assignments for a core systems course with over 700 students per semester.
- Provided constructive feedback on topics such as pipelining, caching, assembly language, datapath and control, helping students reinforce their understanding of low-level system concepts.
- Maintained grading consistency across large student cohorts while supporting learning through timely feedback and collaboration with instructors and other graders.