

Brayden Ngo

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EXPERIENCE AND ACTIVITIES

Systems Engineering Shadowing January 2021 – February 2021
Trident USA | Columbia, MD

Shadowed a Systems Engineering employee at a Trident lab in Columbia. Gained insight and attained hands on experience with computer hardware related components and networking.

Key Responsibilities:

- Learned about IP addresses and configuration
- Exposed to VI editor as well as terminal commands to move and edit files
- Learned concepts of changing computing storage using RAID levels
- Evaluated methods of virtual communication between computers using SSH and Telnet

Dunkin' Donuts June 2021 – August 2021
Perry Hall | Perry Hall, MD

Served as a crew member at Dunkin' Donuts. Learned to coordinate with team members in a fast-paced and often stressful environment.

Key Responsibilities:

- Tend to the concerns and requests of customers
- Learn to create the dozens of different drinks and menu items
- Communicate and work together with co-workers to maintain fast service

EDUCATION

University of Maryland, College Park | Bachelor of Science in Computer Science Expected May 2024

- GPA: 3.8, Fall 2020 Dean's List, Spring 2021 Dean's List, Honors College Member
- CMSC131 Object-Oriented Programming I: A
- CMSC132 Object-Oriented Programming II: A
- CMSC216 Introduction to Computer Systems: B+
- CMSC250 Discrete Structures: B+
- CMSC330: Organization of Programming Languages: A
- CMSC351: Algorithms: A-

Projects

Regular Expression Engine:

Implemented a program to convert between regular expressions, NFAs, and DFAs. Utilized higher order programming features along with user defined types to implement algorithms such as epsilon closure, NFA to DFA conversion, and an acceptance algorithm to determine if an NFA accepts an inputted string.

Media Rental Manager:

Implemented an abstracted version of a movie and album rental service interface by applying inheritance and other object-oriented concepts using Java.

Binary Search Tree:

Implemented fundamental basic methods relevant to binary search trees including adding nodes, deleting nodes, finding minimum/maximum values, deleting nodes using Java.

Document Manager:

Implemented a text-based user interface using text parsing and file I/O with functionality to add paragraphs, lines to paragraphs, replace text, and other editing functions using C.

MIPS Assembly Translation:

Gained understanding of relationship between higher-level languages, assembly and hardware execution by using the MIPS Assembly language to translate C programs such as Fibonacci sequence, palindrome checker, and prefix sum array.

Shell Implementation:

Implemented basic operations of a UNIX shell such as piping and file direction by creating a custom shell using forking, exec functions, piping, and dup system calls in C.

SKILLS

- Java
- C language
- R language
- Ruby
- OCaml
- MIPS Assembly
- Intermediate level of speaking in Cantonese
- Time Management
- Problem Solving