CAMERIE MAZREKU

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EDUCATION

Columbia University   New York City , NY
Bachelor of Arts, Computer Science   Expected December 2024
Relevant classes: Data Structures, Operating Systems, C++ for C programmers, Databases, Cloud Computing, Artificial Intelligence

Borough of Manhattan Community College   New York City, NY
Associate of Science, Computer Science **GPA: 3.74**   Graduated Dec 2021

TECHNICAL SKILLS

Programming Languages: C/C++, Python, HTML, CSS, JS, MySQL
Domain Expertise, Frameworks & Interests: Kernel Development, Google Cloud Platform | React Native, React JS, Next JS | Git

SOFT SKILLS

Problem Solving, Collaboration, Adaptability, Communication, Project Management, Time Management

TECHNICAL AND PROFESSIONAL EXPERIENCE

COLUMBIA UNIVERSITY   New York City, NY
Research Assistant in Operating Systems Lab - Under the mentorship of Dr. Konstantinos Kaffes   July 2023 - Present
- Optimizing the performance of Cloud Databases like Redis and VoltDB with a target of 15% reduction on overhead
- Enhancing the utilization of Huge Pages through a strategic disabling of compaction
- Executing performance tests on large datasets in Cloudlab
- Conducting in-depth literature review on Memory Management Policies
- Managing the research team of 3 students and ensuring deliverables are timely met

THE EVAC   New York City, NY
Web3 Developer intern   Nov 2021 - June 2022
- Developed decentralized applications leveraging NextJS, web3, Solidity, and various providers
- Integrated web3-site with MetaMask, Coinbase, and WalletConnect providers, resulting in a 200% increase in potential buyers
- Conceptualized and implemented an MVP for NFT Ticketing utilizing MongoDB and the Ethereum Blockchain

VILLAGE CARE   New York City, NY
React Native Developer Intern   May 2021 - Aug 2021
- Built a provider directory android mobile application using React Native and public APIs
- Utilized React-Redux library and implemented callback functions

BMCC   New York City, NY
Peer Mentor - Volunteer   Jan 2021 - Present
- Provided professional and academic development advice for my peer students within Computer Science major
- Mentoring 4 BMCC students and assisting them in their transition to a 4-year college program

Avybe   Toronto, Ontario
React Native Developer Intern   Nov 2020 - Feb 2021
- Developed LeaderBoard screen that shows the current top 10 users on the existing Avybe app

PROGRAMMING PROJECTS

Custom Operating System:
- Collaborated on incrementally implementing a kernel linked-list, system calls, process synchronization, scheduler, and a file system by modifying Linux 5.10.158
- Engaged in extensive debugging to ensure correct system functionality, gaining a deepened understanding of operating system behavior and troubleshooting techniques

'make' command mechanism in C++:
- Implemented a parser in C++ to read and process a Makefile, utilizing std::regex for expression matching and parsing rules, commands, and variable assignments in a structured manner
- Employed data structures like maps and sets to store and manage parsed data

Advanced Multi-Server in C:
- Enabled user queries for messages from a secondary server
- Utilized TCP/IP connection, processes, pipe, exec, shared memory, semaphores, signals, threads and mutex locks

AWARDS

- Dean's List - Fall 2020, Spring 2021, Fall 2021, Phi Theta Kappa, National Society of Leadership and Success