Brian Nguyen

bnguy118@ucsc.edu • (408) 476-7894 • San Jose, CA • https://github.com/Brian-MT-Nguyen

EDUCATION

UNIVERSITY OF CALIFORNIA, SANTA CRUZ **Expected Jun 2024**

Bachelor of Science, Major in Computer Science | **Cumulative GPA: 3.94**

Awards: Dean's Honors List (Fall 2020 – Winter 2022, Fall 2022 - Spring 2023)

Relevant Coursework: Principles of Computer Systems Design, Data Structures and Algorithms (Using C and C++), Computer Systems and C programming, Programming Abstractions Using Python, Analysis of Algorithms, Machine Learning, Computer Graphics, Computer Architecture, Discrete Math, Multivariate Calculus, Linear Algebra

EXPERIENCE

Rocket League Director | UCSC Slug Gaming **Oct 2021 - Present**

- Increased active community size by 40% since joining with effective leadership and advertisement using social media outlets (Twitter and Instagram)
- Supervised 9 teams of 3 to 4 players with involvement in 4 total college events and tournaments or leagues

Technology Academy Student | AT&T **July 2023 - Aug 2023**

- Acquired practical development training along with personal self-development skill, technology and personal growth acumen, and professional development
- Gained insights and advice on technology, leadership, and career from business executives and recognized experts
- Completed entry-level training in technology specific fundamentals, including network troubleshooting, 5G tech strategy, Cloud computing fundamentals, and Machine Learning & Algorithms

CSE101 Tutor + Grader | UCSC CSE Department **Apr 2023 - Jun 2023**

- Debugged and explained Data Structures & Algorithms to over 100 students in C/C++ during 2 hour lab sections and 2 hour 1 on 1 zoom sessions per week
- Graded over 475 submissions of questions or parts related to verifying functionality of code

PROJECTS

Multi-Threaded HTTP Server | C **Mar 2023**

- Designed a server that accepts HTTP requests which respond to clients through a socket and port
- Utilizes a dispatcher thread, N (user-specified) thread worker pool, and thread-safe circular queue
- Concurrently processes up to N requests for higher throughput and produces an atomic, linearized audit log

CM1 Motor Tester App | Windows Forms C# **Aug 2022**

- Developed an app which controlled and tested 1 Cool Muscle CM1 Motor through TCP IP connection by sending ASCII commands
- Rotates the motor precisely given set parameters via manual control or automated looping with optional delay

Message Filtering ("Firewall") Program | C **Dec 2021**

- Created a program that parses through text from prior given files containing a blocklist words used for censoring subsequent deciphered user-inputted messages containing matching words
- Utilizes 4 data structures and algorithms including hash tables, binary search trees, bloom filters, and bit vectors
- Filtered and censored 4 messages with 100% accuracy, given the correct spelling of all words

RSA Public-Key Cryptography Program | C **Nov 2021**

- Built a program using the RSA algorithm, which encrypts and decrypts 1 file for secure file transfer between 2 or more clients that led to 5 successful secure file transfers across 2 different machines
- Implemented number theory includes an O(log(n)) step modular inverse, $O(\log_2(n))$ step modular exponentiation, O(log(min(a, b)) step greatest common division, and probabilistic prime number checker with a 0% false positive rate

SKILLS

Languages: Python, C++, C#, C, Java, JavaScript, HTML

Tools: Git/GitHub, Linux/Unix, Windows, macOS, Visual Studio, Unity3D, Autodesk Maya, Source Engine, Phaser

Soft Skills: Project management, effective and consistent communication, and decisive leadership