BRIAN NGUYEN

nguyenbrianatx@gmail.com | (512) 300-6026 | Austin, Texas | linkedin.com/in/brnguyen03 | nguyenbrian.me

EDUCATION

The University of Texas at Austin | *BSA in Computer Science* - GPA: 3.72 Aug 2021 - May 2025

Certificate in Applied Statistical Modeling

Relevant Courses: Data Structures, Algorithms and Complexity, Computer Architecture, Operating Systems, Compilers, Concurrency, Machine Learning

EXPERIENCE

Software Engineering Intern | Modern Intelligence Jun 2025 - Present

- Reduced software latency by 15-20% through optimized multithreading C++ synchronization techniques
- Implemented automated testing infrastructure by configuring GitLab runners on Jetson AGX Orin devices
- Utilized Docker containers to modularize tightly coupled software and test production-ready deployments

College Readiness Mentor | UT Austin May - Aug 2024, May - Aug 2025

- Guided 250+ incoming students during their transition to college through weekly office hours and online support
- Provided academic resources, tutoring, and general Q&A sessions focused on the College of Natural Sciences

Liberal Arts and Science Academy - *Tutor* | Austin, Texas Feb 2022 - May 2025

- Tutored 10+ students in small group sessions several times a week, supporting their academic growth
- Created personalized study plans and provided tailored assistance to meet individual student needs

Harpak Lab - *Undergraduate Student Researcher* | UT Austin Jan - May 2024

- Conducted genome-wide analyses using Bash, R, and PLINK on the TACC supercomputer system
- Participated in weekly lab meetings to discuss papers on polygenic scores for insights into current advancements

PROJECTS

System Emulator | C

- Emulated hardware elements by writing functions to read/write register values and perform computations (ALU)
- Developed a pipeline implementation for basic instructions from the ARM instruction set architecture

K-Means Clustering | CUDA & C++

- Developed parallel K-Means algorithm on a GPU using CUDA for efficient large-scale data clustering
- Optimized performance by utilizing shared memory and minimizing data transfer overheads

Barnes-Hut Simulation | MPI & C++

- Simulated n-particle gravitational interactions using sequential and parallel algorithms to compare performance
- Achieved speedup and scalability by distributing computations across processes using Message Passing Interface

Two-Phase Commit Protocol | Rust

- Implemented a distributed transaction model with several clients and participants while ensuring consistency
- Utilized inter-process communication channels to manage message-passing and fault tolerance

Books Management | Java, JSP & MySQL

- Designed a web application for managing books, allowing users to add, edit, and delete book records
- Deployed a user-friendly interface using JSP and managed data integrity with a structured MySQL database

AWARDS AND HONORS

Eva Stevenson Woods Endowed Presidential Scholarship 2024 | Robert E. Boyer Endowed Presidential Scholarship 2023 | Thomas and Elizabeth Merner Scholarship 2022 | University Honors 2021 - 2024

SKILLS

Java | C/C++ | Python | SQL | HTML/CSS/JS | Spring | Docker | Git | Linux | Bash | Agile/Scrum | CI/CD