

STEVEN DAO

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EDUCATION

The University of Tennessee, Knoxville, Tickle College of Engineering Knoxville, Tennessee
Bachelor of Science in Computer Science with a minor in Cybersecurity May 2025
Accelerated Master's in Computer Science Expected Graduation: May 2026
Cumulative GPA: 3.9

EXPERIENCE

Private Tutor Knoxville, TN
Systems Programming, Intro to Cybersecurity January 2024 – December 2024

- Facilitate 2-3 weekly study sessions to aid the student in mastering class material.

Undergraduate Teaching Assistant Knoxville, TN
CS 101 January 2023 – May 2023

- Conducted weekly office hours in-person and over Zoom.
- Evaluated student programs and answered questions on *Piazza* message board.

RESEARCH

Neuromorphic Artificial Pancreas (NAP) | Undergraduate August 2024 – May 2025

- Worked as part of a 6-man research team under Professor Charles Rizzo to train spiking neural networks to control a closed-loop artificial pancreas system for type-1 diabetes.
- Won **Design 1st place in the Tickle College of Engineering** at the *Exhibition of Undergraduate Research and Creative Achievement (EURēCA)* at UTK.
- A research paper has been accepted to the *IEEE/ACM International Conference on Neuromorphic Systems (ICONS) 2025*.

LEADERSHIP

Shamisen Club President Knoxville, TN
Founding Member and Current President September 2022 – Present

- Coordinate communication with Shamisen Knoxville parent group.
- Plan and lead weekly rehearsals and meetings.

HIGHLIGHT PROJECTS

Private-Use Discord Music Bot | Solo Development Summer 2024

- Developed a discord bot capable of playing, searching, and queueing YouTube songs simultaneously across multiple servers in **C#**.
- Handled **asynchronous** requests and cross-server **concurrent data synchronization**.
- Learned and configured a **CI/CD** workflow utilizing **GitHub Actions**, **Docker Hub**, and the **AWS API** to automate deployment into an **AWS EC2 Auto Scaling Group**.

xv6 <stdio.h> Library | Solo Development May 2024

- Created a **C** library implementing *Buffered File Read/Write* that augments the public xv6 source code.
 - Core Library Functions: `fopen`, `fread`, `fwrite`, `fgetline`, `fgetc`, `fpeek`, `fclose`.
- Utilized the library to implement commonly used CLI programs *cat* and *grep*.

Baymax | Team Development Fall 2023

- Developed an AI Medical Chatbot that records patient symptoms and recommends patients to specific medical facilities based on patient symptoms.
- Led **Frontend-Backend Integration**, configuration of the **application architecture** using **Docker Compose**, and creation of the **Django/Python Backend REST API**.

Relevant Labs

C: Bomb Lab, Simple Threaded Chat Server, Unix-like Shell, Malloc, File Buffers, Ring Buffers, and Thread pools
C++: Linked List, Binary Tree Search, Quick-Sort, Merge-Sort, DFS, Dijkstra's Algorithm, Network Flow

Relevant Courses: Discrete Structures, Algorithm Analysis and Automata, Software Security, Digital Design

Technical Proficiencies

Languages/Scripting: C, C++, C#, Python, Bash
Other: Docker, Git/GitHub, Linux, AWS