Al-kesna Foster

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Education

University at Buffalo, The State University of New York **Dec. 2025**
Master of Science, Computer Science *Buffalo, NY*

University at Buffalo, The State University of New York **May 2024**
Bachelor of Science, Computer Science - GPA: 3.46 *Buffalo, NY*

Work Experience

University at Buffalo Department of Computer Science and Engineering **Sep. 2021 – Present**
Teaching Assistant *Buffalo, NY*

- Mentored **300+ students** in C and Go programming assignments
- Led weekly labs covering low-level systems programming concepts such as system calls, memory management, threads, and concurrency
- Held weekly office hours troubleshooting distributed systems projects in Go, covering topics such as failure detection, distributed data structures, and consensus

The Research Foundation for SUNY **May 2021 – May 2024**
Student Researcher *Buffalo, NY*

- Fine-tuned a large language model on **200+ million tweets** using TensorFlow and Apache Spark, to detect political stances, allowing the team to understand why people exit the democratic process
- Used natural language processing(NLP) to qualitatively analyze **400+** text responses from computer science freshmen, deriving insights on major retention rates
- Utilized Pandas and linear regression modeling to research and present effects of employment services on foster youths' full-time employment rates

Meta **Jun. 2022 – Aug. 2022**
Data Science Intern *Menlo Park, CA*

- Analyzed Facebook video data using Python, Pandas, and statistical analyses, increasing the engagement of **1 million+ young adults** on Facebook videos
- Managed and queried large databases using SQL to obtain relevant datasets for analysis
- Wrote official documentation, created compelling data visualizations, and presented recommendations to senior engineering leadership

Projects

DateFinder - Web Application | *Python, JavaScript, NodeJS, Snowpack, HTML, CSS, Git* **Aug. 2024**

- Created a web application to find dates in any area based on user preferences
- Utilize Google API to develop a Python script for finding restaurants and activities in a given location
- Used NodeJS, Snowpack, Javascript, HTML, and CSS to implement an intuitive user interface

Nize - Web Application | *PHP, ReactJS, JavaScript, HTML, CSS, Git* **Dec. 2023**

- Designed full-stack web application to be an organizational tool for students with an integrated calendar, to-do list, and file storage system using scrum methodology
- Developed the app utilizing ReactJS, JavaScript, HTML, and CSS for the frontend, PHP for the backend, and Git for version control
- Engineered, tested, and implemented features such as registration, functioning friend lists, password recovery, and search bar

Raftm - Consensus Algorithm | *Go* **Apr. 2023**

- Implemented Raft consensus algorithm in Go to maintain consensus in a distributed server cluster
- Developed leader elections and consistent state machines to ensure a fault-tolerant system
- Utilized UDP-based communication protocols to pass messages between client and servers

Technical Skills

Programming/Query Languages: C, Go, JavaScript, Python, Scala, SQL
Technologies/Frameworks: Apache Spark, CSS, Git, HTML, NodeJS, Pandas, ReactJS, TensorFlow

Awards/Extracurricular

Engineering Design and Innovation Scholar **Aug. 2024**
Academically exceptional students committed to solving societal problems through engineering and computing projects

CSE Undergraduate Researcher Award **May 2024**
Recognized for exceptional research in collaboration with UB CSE faculty during undergraduate studies

NSBE **Sep. 2021**
Member

Chess Club **Sep. 2020**
Member