Sarim Aleem

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EDUCATION

University of Texas at Austin   Austin, TX | May 2024
B.S. Computer Science, Minor Arabic, GPA: 3.83
Teaching Assistant: Elements of Computers/Programming
Coursework: Data Structures, Algorithms, Computer Architecture, Operating Systems, Distributed Systems, Compilers, Computer Networks, Intro to Machine Learning

WORK EXPERIENCE

FUJITSU | Software Development Intern   Dallas TX | Jun 2022 – Aug 2022

- Developed web client in Java Spring to migrate network element data to CPS database from MongoDB
- Created CPS database schema to store NETCONF/RESTCONF data in YANG
- Configured network bridge in Docker files to enable cross-communication between 15+ microservices
- Migrated southbound interface from direct drivers to a software defined network controller
- Wrote bash scripts to automate container deployment and test REST endpoints

BAYLOR COLLEGE OF MEDICINE | Research Intern   Houston, TX | Jan 2021 - August 2021

- Built computer vision model in C++ to analyze mice pupil dilation size, 50x faster than deep learning model
- Programmed Tkinter GUI to edit audio files based on signal patterns and spectrogram
- Developed Python library to analyze and visualize pupil dilation of mice using Pandas and Matplotlib

PROJECTS

MARKDOWN BASED CONTENT MANAGEMENT SYSTEM ↗   Go, TypeScript, Express, MongoDB

- Created web server where users can upload markdown content using Go based Command line app
- Deployed Web server using GCP that converts markdown to HTML accessible through REST endpoints

DISTRIBUTED KEY-VALUE STORE WITH LOAD BALANCING ↗   Java, Distributed Systems

- Created linearizable distributed key value Store which replicates data with fault tolerance using Paxos.
- Load balanced key/value workloads using sharded Paxos based replica groups

PINTOS OPERATING SYSTEM ↗   C, Concurrency, Operating Systems

- Implemented operating system with thread priority scheduling, system calls, virtual memory, and EXT file system
- Debugged race conditions, deadlocks, memory errors, and other bugs using GDB

MULTIPLAYER GOMOKU WITH AI ↗   Javascript, Express, Web Sockets

- Created multiplayer website with communication through websockets
- Implemented single player mode with AI using minimax with alpha beta pruning

SKILLS

Languages: Java, C, C++, Python, Bash, SQL
Web Development: React, JavaScript, TypeScript, HTML/CSS, Express, Node
Technology: Git, SQL, Docker, LaTeX, MongoDB, Spring

ACTIVITIES

Central Texas Model United Nations Organized Model UN conference for highschoolers across Texas
Advancing UT Technology Team leader for social media website to connect UT students
Texas Judo Participated in Judo contests