BEREKET SEGA

bereketsega1@gmail.com github.com/bereketsega linkedin.com/in/bereketsega bereketsega.com

ACADEMIC INTEREST

I am interested in the application of algorithms and unsupervised machine learning in data analysis and decision-making. I hope to deepen my understanding of these techniques and contribute to their advancement.

EDUCATION

Bachelor of Science, Computer Science Expected Dec 2023
Towson University *Towson, MD*
Relevant Coursework: Data Structures and Algorithms Analysis, Software Engineering, Operating Systems, Database Management Systems, Data Communications and Networking, Web-based Programming, and Calculus I & II.
Cumulative GPA: **3.8**

SKILLS

Programming Languages	Java, Python, C++, JavaScript, TypeScript, HTML, CSS, Assembly
Databases	MongoDB, MySQL, PostgreSQL
Tools & Frameworks	Git & GitHub, Docker, GraphQL, React, Node, APIs, Postman, Azure, Firebase
Operating Systems	Mac, Linux, Windows

EXPERIENCE

Mathematics Tutor Aug 2022 - Present
Towson University Tutoring & Learning Center *Towson, MD*

- Tutored college students in **5+** math courses mainly in Calculus by utilizing research-based tutoring strategies.
- Assisted tutees in achieving their academic goals by explaining complex concepts and recommending study skills.
- Boosted participation by **50%** by fostering a positive environment and motivating students to ask questions.
- Designed and implemented a personalized study plan for tutees, resulting in a **20%** improvement in test scores.

PROJECTS

Parking Reservation System. Created a full stack Web app used by over **50** residences and **1000+** customers to purchase residential parking lot permits. Utilized **Agile** methodologies to develop a parking lot reservation system using **Node** and **MongoDB**. The development process included collecting requirements, planning sprints, and ensuring that the task was completed within the time, cost, and scope constraints. (view code)

Premier League Predictor Model. Built a model using **Python** libraries to predict the winners of English Premier League soccer games with **88%** accuracy. Applied the Poisson Distribution algorithm to determine the probability of an event occurring with a margin of error of less than **12%**. The model was designed to predict soccer games based on **30** years of goals history and players' performances. (view code)

TCP/IP Chat App. Used Python sockets to build a **CLI** for sending and receiving packets using the **TCP** protocol. Established communication between devices in a **LAN** and created a thread to handle packet traffics. (view code)

INVOLVEMENTS

Towson University Software Engineering Club Sep 2020 - Present
Member *Towson, MD*

- Shared programming skills and experiences by attending weekly meetings and workshops held by the club.
- Gained and explored opportunities to create relationships and network with students and recruiters.