BEREKET SEGA

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EDUCATION

Towson University - *Towson, MD*   *Expected MAY 2024*
Bachelor of Science, Computer Science with Software Engineering Track
Relevant Coursework: Data Structures and Algorithms Analysis, Object-Oriented Design and Programming, Principles of Computer Organization, Data Communication & Networking, Calculus Ⅰ & Ⅱ, Linear Algebra, Discrete Mathematics
Cumulative GPA: 3.7
Dean's List: 3x

EXPERIENCE

Math Peer Tutor - *Towson University Tutoring & Learning Center*   *AUG 2022 - PRESENT*
Towson, MD
- Tutored college students in **5+** math courses mainly in Calculus by utilizing multiple research-based tutoring strategies.
- Led tutoring sessions once a week for **60+** students enrolled in math classes on campus and on zoom(remotely).
- Assisted students achieve their academic goals by explaining complex concepts and recommending effective study skills.
- Improved participation by **50%** by promoting a positive environment and motivating tutees to engage and ask questions.

PROJECTS

Premier League Predictor - *Machine Learning Model*   *view code*
- Built a model using **Python** libraries that predicts English Premier League games with **92%** accuracy of the game winner.
- Applied the Poisson Distribution to determine the probability of an event occurring again with **<8%** margin of error.
- Designed the **algorithm** to predict soccer games based on **30** years goals history and players' performances.

Wordle Bot - *Discord Bot*   *view code*
- Programmed a discord bot to play wordle(a web-based word game with 300k daily players) by utilizing **Node** and **npm**.
- Applied **Git** version control system for tracking changes and **GitHub** to collaborate with other developers.
- Employed npm packages as an **API** to create a discord bot client and leveraged **Heroku** cloud platform for deployment with around 100ms of latency.

Stay@While - *Parking System*   *view code*
- Developed a parking lot reservation system by building **API** for database routes and schemas with **Node** and **MongoDB**
- Improved the payment process parking permit by deploying Stay@While on **Heroku** and **Netlify** for the public use.
- Created a full stack app for more than **50** residentials and **1000+** tenants to purchase their parking lot permit.

TCP/IP Chat App - *Terminal CLI*   *view code*
- Utilized **python** sockets to build a command line interface for sending and receiving packets using **TCP/IP** protocol.
- Managed to allow communications from devices in a **LAN** and create a thread to handle the traffic of packets.

SKILLS

Programming Languages: Java, Python, C++, JavaScript, TypeScript, HTML, CSS, Assembly, LaTeX, MATLAB
Databases: MongoDB, MySQL, PostgreSQL
Tools & Frameworks: Git, GitHub, Docker, GraphQL, React, Node, APIs, Postman, Heroku, Firebase
Operating Systems: Mac, Linux, Windows
Soft Skills: Leadership, Teamwork, Mentor, Creative, Adaptable, Bilingual(Amharic)

INVOLVEMENTS AND AWARDS

Software Engineering Club - *Member at Towson University*   *SEP 2020 - PRESENT*
- Shared programming skills and experiences by attending weekly meetings and workshops held by the club.
- Gained and explored an opportunity to create relationships and network with students and recruiters.