

# BEREKET SEGA

[bereketsega1@gmail.com](mailto:bereketsega1@gmail.com)

[github.com/bereketsega](https://github.com/bereketsega)

[linkedin.com/bereketsega](https://linkedin.com/bereketsega)

[bereketsega.com](https://bereketsega.com)

## 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.