A Unified Online Platform for University Student and Alumni Associations

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Introduction

- Colleges and universities in the United States host students from diverse backgrounds and nationalities who pursue various interests and careers.
- Background: Alumni and students often juggle fragmented communication channels and separate platforms to stay in touch with their communities, associations and faculty (Anand, 2025).
- Current platforms operate in silos. Information is often dispersed across multiple channels (Omondi, 2024, p. 1).
- **This project aims to develop an inclusive, secure, and user-friendly one-stop platform that engages students and alumni from multiple universities across the New York metropolitan area.**
- The platform will connect people who share similar interests and/or backgrounds to collaborate, network, strengthen career development support, socialize, and form groups; it will feature robust privacy and security.

Approach

- The application followed the MVC (Model-View-Controller) architecture to separate concerns, improve maintainability, and facilitate the project's scaling (TutorialsPoint, n.d.).
- The application's frontend was developed using HTML5, CSS3, JavaScript (ES6+), jQuery, and the Bootstrap framework.
- The backend was developed using Laravel. This PHP framework (hypertext preprocessor) processes business logic, handles interactions between the application's frontend and database, and implements a RESTful API and communication with the frontend.
- The MySQL database was chosen for its flexibility and ease of use to store application data, including user profiles and logs.
- To build a secure application, we followed secure coding standards, such as those outlined by the Open Web Application Security Project (OWASP).
- The coding standards protect the site and users from common vulnerabilities, including Brocken Access Control, Cryptographic Failures, Injection, Vulnerable and Outdated Components, etc. (OWASP Foundation, n.d.).
- We also followed guidelines established by General Data Protection Regulations (GDPR) to secure Personally Identifiable Information (PII) and conducted penetration testing to identify and mitigate vulnerabilities.

Outcomes

We successfully hosted the application on https://campuscircle.org/ and thereafter conducted unit, functional, usability, and system tests to ensure the platform met the specified requirements. User feedback was taken to guide future iterations.

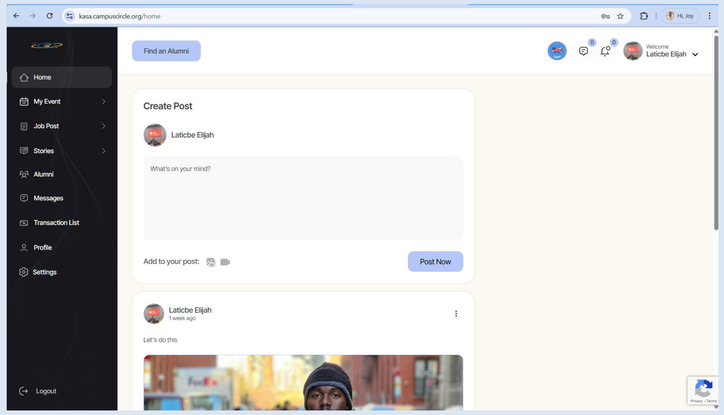

Figure 1: A screenshot of the user dashboard

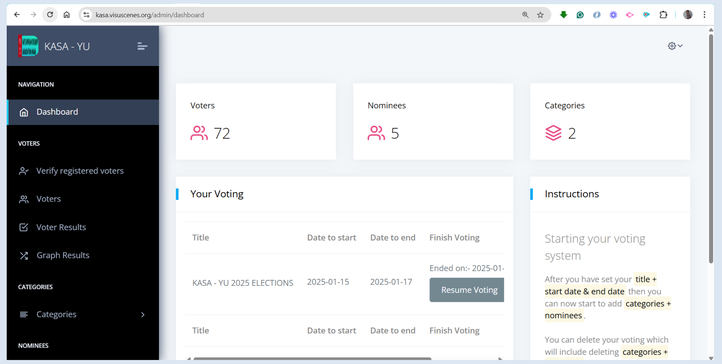

Figure 2: A screenshot of the KASA voting management and data dashboard; access is by an authorized administrator

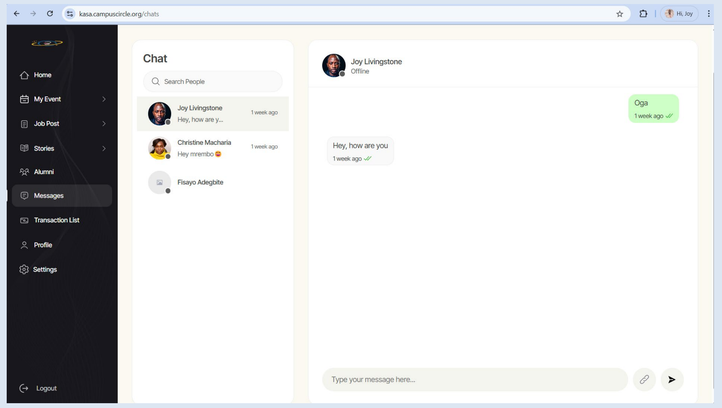

Figure 3: A screenshot of the in-app messaging feature

Conclusions

- This community-based platform will enable students and alumni to collaborate and foster engagements with each other based on shared interests, career aspirations, extracurricular interests, members' geographical locations, and other factors.
- The platform is a prototype at its earliest stage of implementation, and it has so far been beta-tested by KASA (Katz African Student Association) at Yeshiva University. KASA leadership used the voting feature to carry out its 2025/2026 cabinet election.
- In line with our aim to create a secure web platform, only authorized administrators can approve or decline a new user. Members that do not comply with community guidelines and policies may be deactivated.

Limitations:

- Time constraint – unable to introduce all application features.
- Team size – a wider talent pool is required to implement such an ambitious project.

Future implementations:

- AI-powered matchmaking.
- Geolocation-based meetups.
- Personalized content feeds.
- AI-driven suggestions tailored to user interests.

Acknowledgements

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