

NUCircle

Project Description

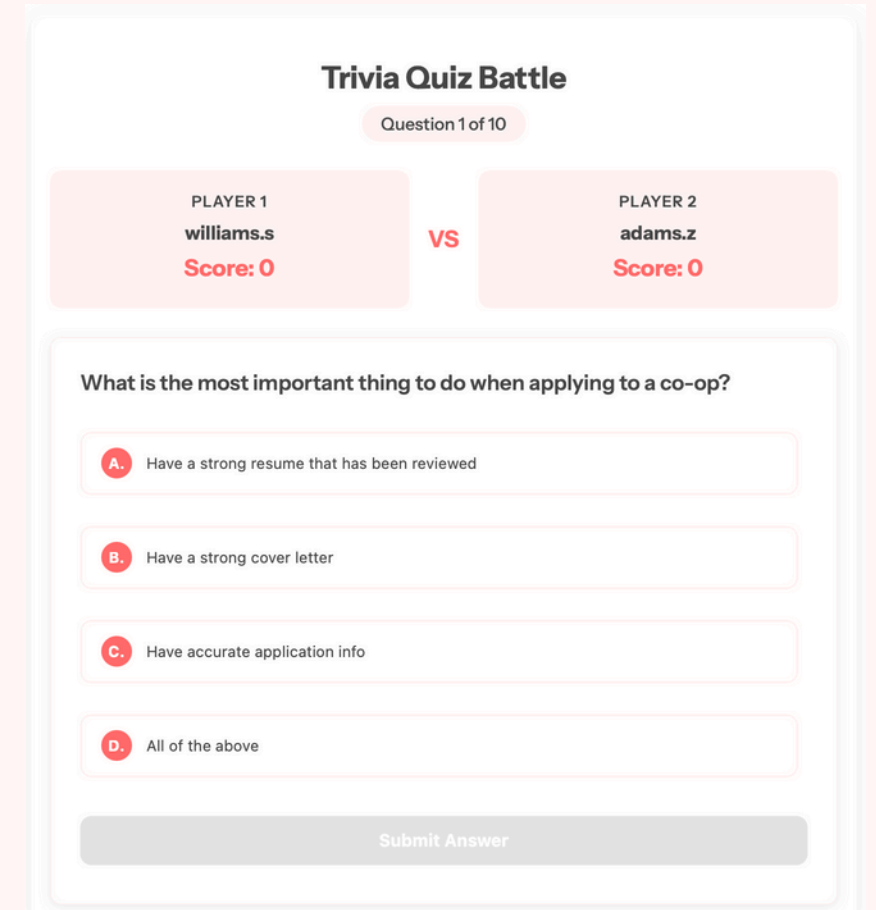
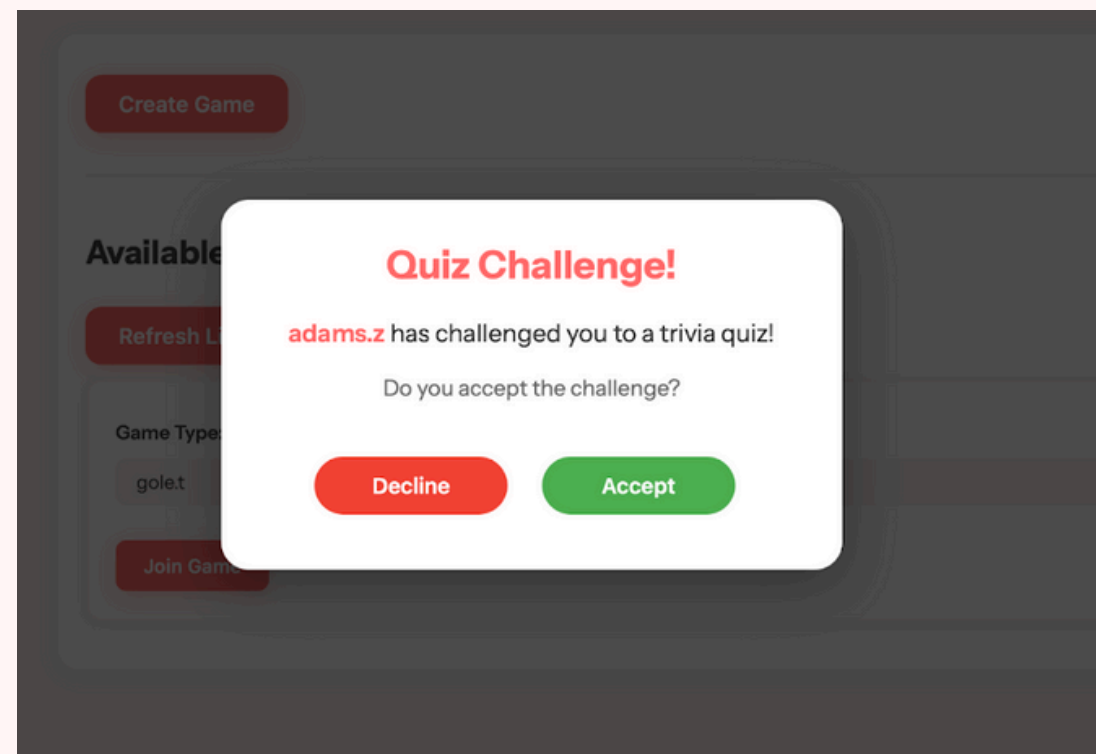
Group #514: Tania Gole, Rachel Yan, Angelina Zhang, Maya Robie
Repository: <https://github.com/neu-cs4530/fall25-project-m-a-r-t-514>
Website link: <https://fall25-project-m-a-r-t-514.onrender.com>

NUCircle is a social career platform built for Northeastern students to streamline the co-op/internship and job search. Instead of jumping between LinkedIn, Discord, and club forums, students can find verified peers with relevant experience, all in one place. Students can join company and career specific communities, chat with others who've been in their target roles, and build detailed profiles with work experience, academic background, and links to LinkedIn, GitHub, and portfolios. NUCircle also features gamified Northeastern quiz battles, points, badges, and a global leaderboard to boost engagement, plus real-time notifications for messages, invites, and community activity. Overall, NUCircle is a centralized, trusted hub that helps students prepare better for interviews, make informed career decisions, and build meaningful professional networks.

Features

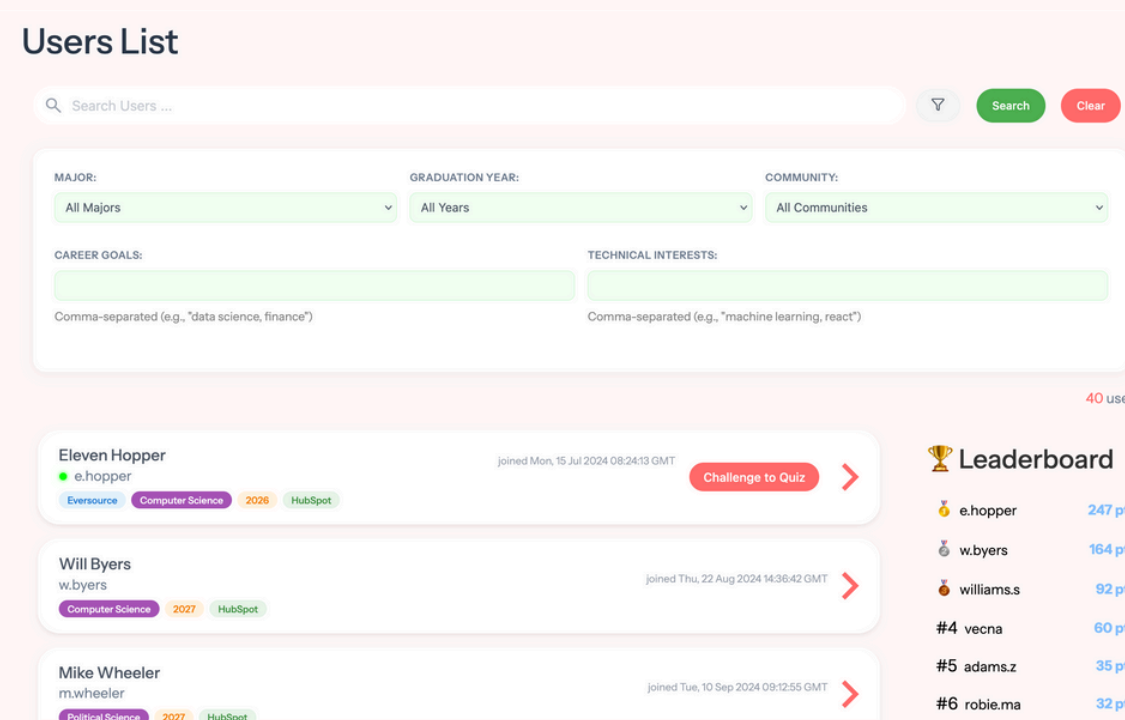
User Story 1: Quiz & Auth

- User registration and JWT authentication
- Hashed passwords
- Online status indicator
- Northeastern Trivia Quiz game
- Challenge pop-up invitations,
- Tiebreaker mode with 10-sec timer



User Story 2: Badges & Messaging

- Community-specific group chats
- Message reactions
- Community visit streaks
- Notifications
- Point system & Badges
- Online member count per community



HubSpot



A community for students who have completed or are applying for HubSpot co-ops. Discuss interview tips, tech stack insights, and what it's like to work in a collaborative, fast-paced marketing tech company.

Daily Streak

Community visited 2 days in a row

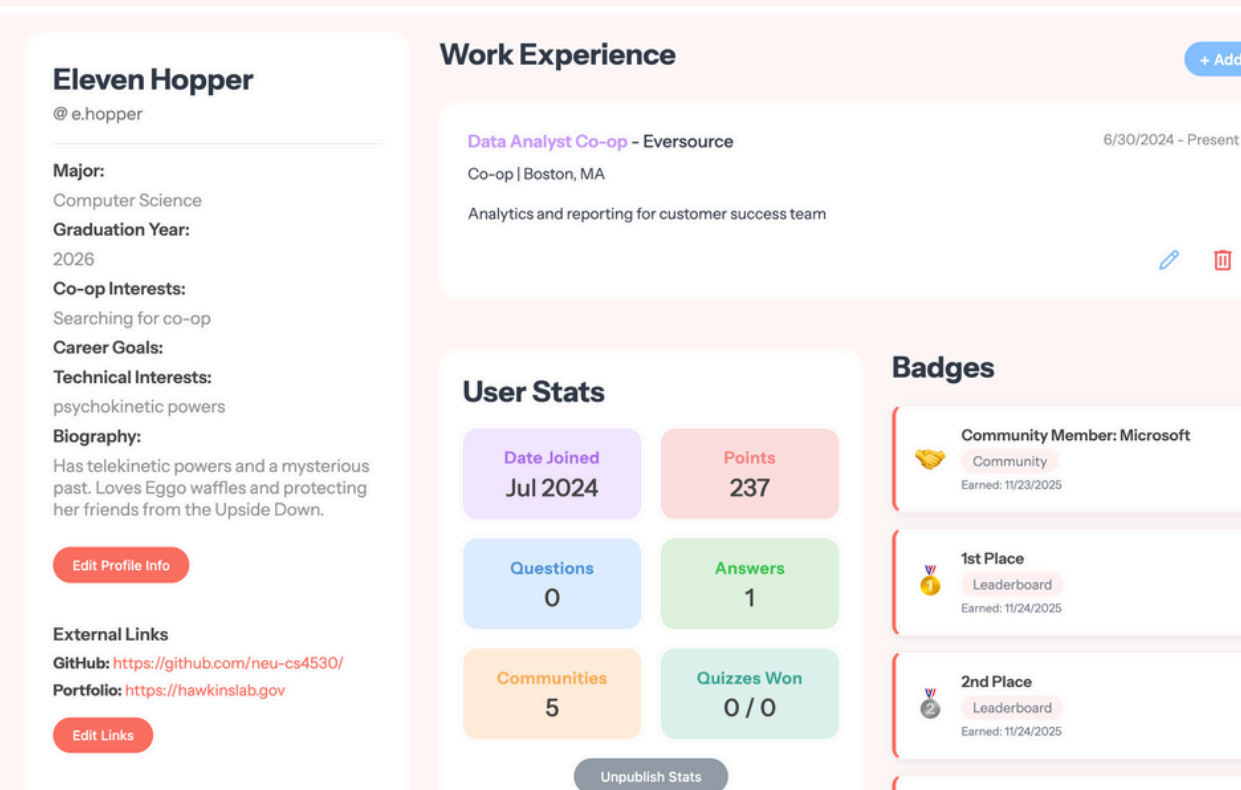
Longest Streak

w.byers holds the record with 5 days

Leave

User Story 3: Profile Page Creation

- Profile editing & link integration
- Work experience management
- Career goals and technical interests
- Advanced search and filtering
- Stats visibility toggle
- Real-time global leaderboard



Technology Stack & Design Decisions

NUCircle is built using a modern full-stack JavaScript ecosystem. The frontend uses React + TypeScript with Vite for fast builds and Cypress for end-to-end testing. The backend is a Node.js + Express API with MongoDB as the primary database.

- Real-time experiences, including online status, community chats, quiz invitations, and game updates are powered by Socket.IO.
- Authentication uses JWT tokens stored in HTTP-only cookies combined with bcrypt-hashed passwords for secure, stateless login across sessions.
- Business logic is decoupled into dedicated service modules (UserService, CommunityService, BadgeService, ChatService) improving maintainability and testability.

The app is hosted on Render.com with environment-based configuration for deployment. This design enables responsive UI updates, secure authentication, and fast real-time interactions at scale.

Future Work

In the future, we plan to extend this project with several enhancements:

- **Quiz & Authentication Enhancements:** Add difficulty levels, larger question banks and stronger anti-cheating safeguards to make the quiz battle more educational, scalable, and engaging.
- **Community & Messaging Expansions:** Introduce threaded discussions, pinned resources and moderation tools to create richer, safer, and more informative community interactions.
- **Profile & Career Feature Upgrades:** Resume/experience exports, availability scheduling for mock interviews, customizable profile themes, and analytics on profile.

These improvements were chosen to make NUCircle more than just a chat platform, transforming it into a comprehensive, reliable, and supportive career ecosystem.