List of Cyber Security Tasks Completed and Remaining

Completed:

OAuth for more secure logins

- No longer need to worry about storing password hashes
- Accounts must go through Google account creation verification, which requires a phone number

Restricting certain domains to sign up

- Option is available, documentation is made to enforce certain domains.
- For example, for UA usage, google accounts registered with a ua.edu, or crimson.ua.edu domain would be the only accounts allowed to register an account in Chess Engine Comparator

Celery and Redis execution of bots

- Moves execution of bots to separate process
- Limits the attack vector that malicious bots would have
- Limits amount of resources that bots have access to

To be Implemented:

HTTPS for Local Development

- When hosting on Google Cloud Run, it automatically handles HTTPS implementation
- However our codebase does not support HTTPS when ran locally

Docker Containers for Celery Tasks

- Using Docker containers to run our python code would prove much more resilient security wise
- Right now the celery tasks are ran in a raw python process, that is somewhat limited by Celery