

HAMZA PATWA

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EDUCATION

CUNY Queens College, Flushing, NY
BA Computer Science

Enrolled: Fall 2022 — Expected: Spring 2025
Overall GPA: 3.5

EXPERIENCE

Post-Quantum Cryptography & AI Research Group

Research Intern

Project Link: <https://github.com/hamzapatwa/hamzapatwa.github.io>

Flushing, NY
Feb 2024 - Apr 2024

- Conducted in-depth research on deep learning and large language models (LLMs), creating detailed presentations for Dr. Delaram Kahrobaei to advance academic understanding and discussion.
- Collaboratively developed an 'Internship Finder' project, focusing on front-end development using Node.js and TypeScript, while enhancing user interfaces with React, HTML, and CSS to improve user experience.
- Utilized Git for version control, ensuring efficient collaboration and project management throughout the development process.

Major League Hacking Open-Source Hackathon - OpenMaps

Project Link: <https://github.com/ImPrithibi/Open-Source-Hackfest>

Back-end Team Member

New York, NY
Oct 2023

- Collaborated in a multi-team web application project to make an open source mapping API.
- Utilized MongoDB to store data for different locations on the map, which allowed for users to also upload their own data to make for a collaborative-map.
- Implemented Object-Oriented Programming principles to add features such as bathroom status tracking across the map, including data like crowd-level, and cleanliness.
- Wrote detailed documentation on the services and structure of the project, as well as a Wiki to help other developers implement OpenMaps for their own uses, and location.

PROJECTS

Password Generator

June 2023

Project Link: <https://github.com/hamzapatwa/Java-Password-Generator>

- Developed a Java-based Password Generator application with a user-friendly Graphical User Interface (GUI) using Swing, allowing users to create strong and customizable passwords.
- Maintained secure password generation using a SecureRandom number generator, ensuring the generated passwords are robust against brute force attacks.
- Produced a dynamic UI that includes checkboxes for users to select various character sets (uppercase, lowercase, digits, special characters), and a slider to adjust the password length (between 6 and 20 characters).
- Enabled users to copy generated passwords to the clipboard for seamless integration with other applications and services.

Gridwalker Puzzle Game

May 2023

Project Link: <https://github.com/hamzapatwa/GridWalker>

- Constructed randomly generated puzzle game with a GUI with randomly generated grid layouts for every round.
- Tasked players with strategically choosing a path to reach the randomly placed target.
- Demonstrated proficiency in Java programming, including GUI development, event handling, and algorithm implementation, to create an entertaining and challenging puzzle game.

GHOST Word Game

Mar 2023

- Constructed a multiplayer turn-based word game with fair turn-based gameplay, that can skip over eliminated players, along with a word library to detect full-words entered into the game..
- Tasked players with forming the longest string of letters that is the beginning of a word, but not a full word until someone loses.
- Designed a challenge function for when a another player believes the string is not the beginning of any word.

SKILLS

- **Programming:** Java, C++, Javascript, Node.js, Python.
- **Software:** VScode, Eclipse Java. IntelliJ, Git, MongoDB
- **Communication:** Presentation Skills, Technical Writing, Strong email communication skills, Team Collaboration, Documenting technical processes and procedures.