# Belen Tesfaye

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## EDUCATION

**Northeastern University**, Boston, MA September 2021 - April 2025
*Candidate for Bachelor of Science in Computer Science and Behavioral Neuroscience*

- Khoury College of Computer Sciences, Honors Program
- Northeastern University Global Quest Program at American College of Thessaloniki, Spring 2022

**Activities:** Alpha Phi Omega, Color Stack, Northeastern Black Engineering Student Society, Sisters in Solidarity
**Relevant and Ongoing Course Work:** Object- Oriented Design, Data Based Design, Fundamentals of Computer Science I & II, Calculus and Differential Equations, Statistics in Psychological Research, Fundamentals of Software Engineering , Algorithms and Data Structure (IP) Human Interactions

## SKILLS

**Programming Languages:** Java, JavaScript/Typescript, ReactJS, Python (Collab), C++ (CLion), SQL (MySQL), CSS, HTML, MongoDB
**Tools/Platform:** GIT, AWS, Figma, Linux
**Language:** Amharic (native speaker)
**Microsoft Office Suite:** Excel, Word, Outlook

## EXPERIENCE

**D'Amore-McKim Business School – Entrepreneurship and Innovation**, Remote (Boston, MA)
*Research Assistant* April 2023 – March 2024

- Contribute to the development of large data sets that entail details of products under development by biotech startup.
- Using established methodology and training provided by advising professor to gather, input, and clean data.
- Employed Excel spreadsheets to encode and organize data effectively, ensuring accuracy and accessibility for analysis and interpretation.

**Beth Israel Deaconess Medical Central Location**, Remote (Boston, MA)
*Neuroimaging Research Assistant Co-op* June 2023 - September 2023

- Investigated the application of neuroimaging techniques in clinical research, examining how they can provide insights into diseases such as cerebral amyloid angiopathy, multiple sclerosis, cancer, and diabetes; findings supported the development of targeted diagnostic and therapeutic approaches.
- Utilized computer-based image analysis using python, ITK-SNAP, MATLAB, Monailabel, and 3D Slicer.

## ACADEMIC PROJECTS

**CoveyTown Virtual Shop**
*CS 4350 (Foundation to Software Engineering)*

- Developed UI for login and sign-up screens for the new CoveyTown feature, as well as the virtual shop and inventory UI.
- Implemented login and sign-up interfaces into a functional product by creating APIs and connecting them to the backend services.
- Utilized spritesheets to create animation frames and JSON files for sprite visualization of CoveyTown pets and effects.
- **Utilized**: Typescript, React.js, Phaser, Texturepack, MongoDB, Version Control (Git)

**HeritageHub**
*IS 4300 (Human-Computer Interaction)*

- Designed UI prototypes in Figma, ensuring visual representations of the product.
- Integrated generative AI for an AI chatbox feature to assist users with heritage-related queries and storytelling.
- Applied custom CSS for aesthetic consistency and conducted user experience research for interface enhancements.
- **Utilized**: Typescript, Javascript, React.js, Firebase, OpenAI, Version Control (Git)

**Reversi Game**
*CS 3500 (Object Oriented Design)*

- Developed dynamic game interface using Java, applying MVC architecture and object-oriented principles.
- Implemented human and AI player types with strategy patterns for adaptive gameplay.
- Leveraged adapter and observer design patterns for enhanced modularity.
- **Utilized**: Java, GUI, Version Control (Git), Object-Oriented Design principles