

## EDUCATION

### Northeastern University

Candidate for M.S. in Computer Science | GPA: 3.77

Exp. Graduation Dec 2022

Coursework: Systems; Algorithms; Object-Oriented Design; Software Development; Mobile App Development

B.A. in International Affairs, minor in Computer Science | GPA: 3.44

Aug 2020

Awards: Academic Excellence Award; Linguistics Departmental Award

## TECHNICAL KNOWLEDGE & PROJECTS

For more see: [alannaa.github.io](https://alannaa.github.io)

### AI Player Game Server - Java

Software Development | Fall 2020

- Designed and implemented a scalable gaming system in roughly 7,500 lines of Java that hosts games of *Hey, That's my Fish!* and provides a server to which hackers can connect AI players to compete in tournaments
- Pair programmed and defended design choices in three code walks in front of class of 50 students
- Developed AI player API and composed detailed protocol documentation for the API
- Employed remote-proxy pattern to bring together server-side game system and client-side AI players

### Language Predictor Tool - Python

Fundamentals of Data Science | Fall 2018

- Built a language-prediction tool effective on documents written in one of 7 languages included in learning samples
- Compared trigram frequencies in test set with those in sample set using cosine similarity index to make predictions

### Graph Theory Game - Java

Fundamentals of Computer Science | Spring 2018

- Implemented *Light 'Em All*, a game to light a power grid by rotating tiles containing wires and moving a weak power station along the wires until the entire grid is connected and all edges of the grid are lit
- Generated continuous wire grid with Kruskal's algorithm, identifying min spanning tree before rotating for gameplay
- Defined radius of power as half of the furthest distance between two nodes; used breadth first search to traverse wires stemming from the power station and light only the tiles within the radius of power

Programming Languages: Java; C; Python; HTML/CSS/Javascript

Software: Vim; Git/Github; IntelliJ; Android Studio

## PROFESSIONAL EXPERIENCE

### The Boston Foundation

Grants Management Intern

Boston, MA | Jul 2020-Present

- Manage grants totaling \$15 million annually by compiling and recording information in a readable, organized manner
- Liaise Program Department with technical consultant to design new Grants Management software (GMS)
- Propose system design choices for GMS by combining detailed knowledge of Programs with technical expertise

### Apple Inc.

Specialist

Cambridge, MA | Oct 2014-May 2016; Seasonally 2019-2020

- Employed vast knowledge of Apple products by anticipating customer needs and offering enlightening solutions
- Explored emerging technologies via self-guided product research; shared knowledge with peers, customers daily
- Built relationships with team of over 100 staff members by delivering and receiving constructive feedback regularly

### Northeastern University 'Dialogue of Civilizations' Global Experience

Program Coordinator

Amman, Jordan | May 2017-Apr 2020

- Co-led international experiential study abroad program to Jordan with 38 students for three program iterations
- Developed students' cultural competence through weekly chats; adjusted programming based on student feedback

### Tatte Bakery and Café

Shift Lead

Cambridge, MA | Jul 2016-May 2018

- Identified the need to improve product tracking; developed a data visualization of product shelf life versus sales in Excel, leading to more informed supply and inventory orders, reduced waste, and a higher quality product