

Alanna Pasco

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EDUCATION

Northeastern University

M.S. in Computer Science | GPA: 3.80

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

Sept 2016 - Aug 2020

Awards: Academic Excellence Award; Linguistics Departmental Award

TECHNICAL KNOWLEDGE

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

Tools: Vim; Git/Github; IntelliJ, Android Studio, Ubuntu

Database Management: Firebase Realtime JSON Database

PROJECTS

Android Dog Walking Application

Mobile App Development | **Summer 2021**

- Built back end of a mobile app for dog owners to track and share dog walks, set reminders for dog care, and more
- Managed user data in Firebase Realtime JSON Database, defined data representation of all user data in Java
- Created utility to put and fetch data from Firebase off main GUI thread to minimize UI latency

AI Player Game Server

Software Development | **Fall 2020**

- Designed and implemented a scalable client-server gaming system in roughly 8,000 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

Fundamentals of Data Science | **Fall 2018**

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

Graph Theory Game

Fundamentals of Computer Science | **Spring 2018**

- Implemented Light 'Em All in Java, a game to rotate tiles, connect wires, and advance a power station along the wires until entire grid is connected and lit
- Generated continuous wire grid using Kruskal's algorithm, identifying min spanning tree before rotating for gameplay
- Traversed wires using breadth-first search from power station node and visually lit up tiles within a defined radius

PROFESSIONAL EXPERIENCE

CS 4500 Software Development Teaching Assistant

Boston, MA | **Sept 2021 - Present**

Khoury College of Computer Sciences, Northeastern University

- Critically review assignment submissions written in students' chosen programming language and peer review grades
- Provide detailed feedback regarding students' design decisions and adherence to programming principles

Grants Administrator

Boston, MA | **Jul 2020 - Present**

The Boston Foundation

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

Program Coordinator

Amman, Jordan | **May 2017 - Apr 2020**

Global Experience Office, Northeastern University

- Co-led international experiential study abroad program to Jordan with 38 students for three program iterations

Specialist

Cambridge, MA | **Oct 2014 - May 2016**

Apple Inc.

- Anticipated customer needs and offered enriching solutions via sales as well as guided product exploration
- Built relationships with team of over 100 staff members by delivering and receiving constructive feedback regularly