# Hannah Moran

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# Education

Carleton College

Northfield, MN

Bachelor of Arts in Computer Science

Jun. 2024

Bachelor of Arts in Computer Science, Minor in Digital Arts and Humanities.

University of Cambridge Cambridgeshire, UK

History of Computing in England Jun. 2022 - Aug. 2022

#### Coursework

## **Computer Science**

Algorithms; Calculus II; Computability and Complexity; Computer Systems; Cryptography; Data Structures; History of Computing; Mathematics of Computer Science; Programming Languages: Design and Implementation; Software Design; Turing, Gender, and Computing.

## **Digital Arts**

Advanced Photography; Art, Interactivity, and Microcontrollers; Computer Music and Sound; Constructed Image; Data Visualization; Fictional Worlds; Hacking the Humanities; Spatial Humanities.

# Experience

# Software Engineering Externship Carleton College

Designed and implemented the React and Python frontend of a campus-wide Northfield, MN marketplace for Carleton students in a two-week timeframe.

Nov. 2023 - Dec. 2024

#### **Software Engineering Internship**

Consistently contributed to the full-stack development of an enterprise-level application deployed to over 30,000 Best Buy corporate employees by collaborating with a team of international software developers to gain valuable experience with a React-Redux frontend and a SpringBoot backend.

Richfield, MN Jun. 2023 - Aug. 2023

UI/UX Designer Hack4Impact

Conducted self-driven user experience research for numerous applications to Construct accessible and intuitive design screens to be implemented.

Northfield, MN Sep. 2022 - Current

Access Services Assistant Gould Library

Assisted library patrons and maintained an organized inventory of library

Morthfield, MN

Mug. 2021 - Current

#### Communication, Outreach, and Social Media Externship

Developed a cohesive brand design for the non-profit's social media presence through familiar design tools such as Canva.

**Concussion Alliance** 

**Best Buy** 

Seattle, WA Nov. 2021 - Dec.2021

# **Skills**

## Design

Figma, Photoshop, Lightroom, Canva.

# **Programming**

Python, C, C++, Java, Swift.

## **Web Development**

React, Node.js, d3.js, HTML, CSS, Javascript, Typescript.

#### Tools

ArcGIS Pro, ArcGIS StoryMaps.

# **Projects**

#### **Senior Capstone: Ethical Hacking in Action**

Implementation of a hackable machine for penetration testing purposes. Designed to illustrate how SQL Injection, Rainbow Table Attacks, .git Folder Exploits, File Upload Attacks, and Setuid and \$PATH injection work and explore prevention.

# **Mapping Intercepted Radio Communication in WWII**

StoryMap website mapping undigitized, deciphered intercepted telecommunication intelligence gathered from British Y-stations to provide a snapshot of decoded information that the Allied Powers would've analyzed.

CarlMart Nov. 2023 - Dec. 2023

Jan. 2024 - Mar. 2024

Feb. 2024 - Mar. 2024

Oct. 2023 - Nov. 2023

User-friendly web application facilitating campus-wide buying and selling of items, collaborating with a three-student team under guidance of a Carleton College alumni, and ensuring a seamless and efficient marketplace experience for students.

# **Ivy: The Interactive, Fortune-Telling Robot**

Responsive sculpture depicting a robot that utilized Arduino hardware to carry a conversation with a user. Implemented facial expressions using a LCD, and prompted "Yes/No" questions to the user. Functionally, a finite state automata designed to be user-approachable.

Scheme Compiler Oct. 2023 - Nov. 2023

Culminating project in Programming Languages, implemented in C.