

**Joseph B. Horner** | [linkedin.com/in/joseph-horner-258299313](https://www.linkedin.com/in/joseph-horner-258299313)

## EDUCATION

**George Mason University** – Fairfax, VA | Expected graduation December 2026

- M.S. in Software Engineering program, current GPA 3.95

**William & Mary** – Williamsburg, VA | May 2024

- B.S. in Computer Science, Math minor. GPA: 3.6, *cum laude*
- Dean's List: Spring 2022, Fall 2022, Fall 2023, Spring 2024

**Florence University of the Arts** – Florence, Italy | January 2024

- Collaborated with students from various universities in projects exploring Italian culture

## PROGRAMMING LANGUAGE EXPERIENCE AND RELEVANT SKILLS

Python

C++

HTML (some experience)

Y86 Assembly (some exp.)

Jupyter Notebook

Linux

Java

SQL

ReactJS (some exp.)

JavaScript (some exp.)

Android Development

Web App Development

C

XML (some experience)

NodeJS (some exp.)

CSS (some exp.)

Cybersecurity

GitHub

## PROJECTS

**Maze Project** - expanded upon an existing code base to create an Android app and automated algorithms for a maze game. Developed extensive unit testing using JUnit to ensure functionality of the app in edge cases. **Skills:** Software Development, Java, Code Testing, Android Development

**Pantry Tracker** - developed a Next.js web app using MUI components that tracks items in a pantry in a Firestore database. Integrated the Reflection70B AI through the OpenRouter API to add a feature to generate recipes based on the items in the pantry. **Skills:** Web App development, User Interface Design, AI APIs

**Bitcoin Trading Algorithm** - expanded upon an open-source code base to update existing code to work with current libraries of the time and to develop a program to scrape Bitcoin data and process it into a dataset, and to use machine learning models on the dataset to predict whether Bitcoin prices will increase or decrease over 1 day, 7 day and 30 day time intervals. **Skills:** Machine Learning, Data Analysis, Building on open-source code

**Network Analysis Project** – collaborated with 4 classmates to collect network traffic data from various sites using Wireshark and employed machine learning models to predict the types of service offered based on features such as network protocols used. **Skills:** Network Traffic Analysis, WireShark, Collaboration with teammates

## RELEVANT COURSEWORK

### Undergraduate:

Probability & Stats for Scientists

Computer Organization

Ops Research Deterministic Model

Intro to Machine Learning

Introduction to Edge Computing

Network Systems and Design

### Graduate:

Info Security Theory/Practice

Database Systems

Stochastic Models

Software Testing (In progress)

Obj Orient Software Specification and Construction

User Interface Desgn/Dev

Theory/Application Data Mining

Introduction to Artificial Intelligence (In progress)

## WORK EXPERIENCE

**Tile Worker** – R. Bratti Associates | Summer 2020, 2021, Winter 2021

- Prepared floor tiles for contractors to lay at various D.C. area metro station sites; notable projects include East Falls Church, West Falls Church, Dunn Loring, and Greenbelt.
- All metro projects were completed on time.

**Bagger/Courtesy Clerk** – Giant | Summer 2019

- Performed various roles such as grocery bagging, cart collection and item restocking to assist the store where understaffed; developed strong customer service skills.

## VOLUNTEER/OTHER EXPERIENCE

Boy Scouts of America - Eagle Scout | August 2020

Fairfax County Park Authority | 2021

Seabury Resources for the Aging – Volunteer | 2018, 2019, 2020