

Education

Georgia Tech

Atlanta, GA | Class of 2022
M.S. Human-Computer Interaction

UMass Amherst

Amherst, MA | Class of 2020
B.S. Computer Science, GPA 3.97
Commonwealth Honors College

Universidad Carlos III

Marid, Spain | Spring '19
Spring '19, Study Abroad

Northeastern University

Boston, MA | Fall '16
Transferred, GPA 4.0

Research Interests

Mixed Reality
Perceptual Interfaces
Human-computer interaction
Psychology, Perception

Coursework

Introduction to Algorithms
Inside the Box (C, Assembly)
Artificial Intelligence
Computer Graphics
Web Programming
Natural Language Processing
Intro to Human Computer Interaction
Machine Learning
Game Programming (Unity)
Mobile and Ubiquitous Computing

Skills

Tools

Git / GitHub
Vim
PyData
React / JSX
Hugo
Unity / C#
Blender
Photogrammetry
Adobe suite

Languages

Python
C
Javascript
Java

Hardware

Oculus Rift/Quest
Arduino
Raspberry Pi

Experience

UMass Amherst - Undergraduate Course Assistant (Sep - Dec 2019)

- ◇ Helped informatics students learn Python and predictive analytics
- ◇ Held office hours, graded assignments, and responded to forums

University of Texas, Arlington - Research Intern (Jun - Aug 2019)

- ◇ Researched and prototyped a gait analysis and visualization system for aging-in-place fall prevention
- ◇ Accepted for publication in PETRA '20

Tools: Kinect v2, Xarray, Pandas, Plot.ly, Three.js

Optum - Technology Development Program (May - Aug 2018)

- ◇ Built a streamlined end-to-end CI/CD testing suite for a collection of RESTful microservices

Tools: Docker, Spring Boot, Maven, Spock, Groovy, Jenkins

Energize Andover - Energy Research Intern (Jun - Aug 2017)

- ◇ Developed Python machine learning model to forecast municipal building energy usage from Metasys logs
- ◇ Performed statistical analysis to find anomalous behavior and opportunities for improved energy efficiency

Tools: Anaconda, Pandas, Numpy, Scikit-learn, SciPy

Projects

HMD.link

- ◇ Web app for painlessly sending long URLs to an XR headset
- ◇ Built security measures to prevent abuse in the login-free system

Tools: Preact, JSX, Webpack, Firebase, Netlify, Zapier

Honors Thesis - Simulating a Mixed Reality Memory Palace

- ◇ Organized a cross-campus psychological experiment
- ◇ Surveyed and applied a variety of 3D reconstruction strategies
- ◇ Prototyped a mixed reality memory palace application and simulated the experience on VR hardware

Tools: Oculus Quest, Unity, MRTK, Sketchup, Blender

Curiouser VR

- ◇ VR puzzle game developed during MIT Reality Hack 2020
- ◇ Implemented novel locomotion mechanic and core interactions

Tools: Oculus Rift, Unity, Oculus Integration Tools

ForecasWatch 2

- ◇ Intricate weather watchface for Pebble e-paper smartwatches
- ◇ Implemented wireless communication, persistent storage, and cross platform deployment for a low-power wearable device

Tools: Pebble SDK, Pebble Clay, Docker, Travis CI