

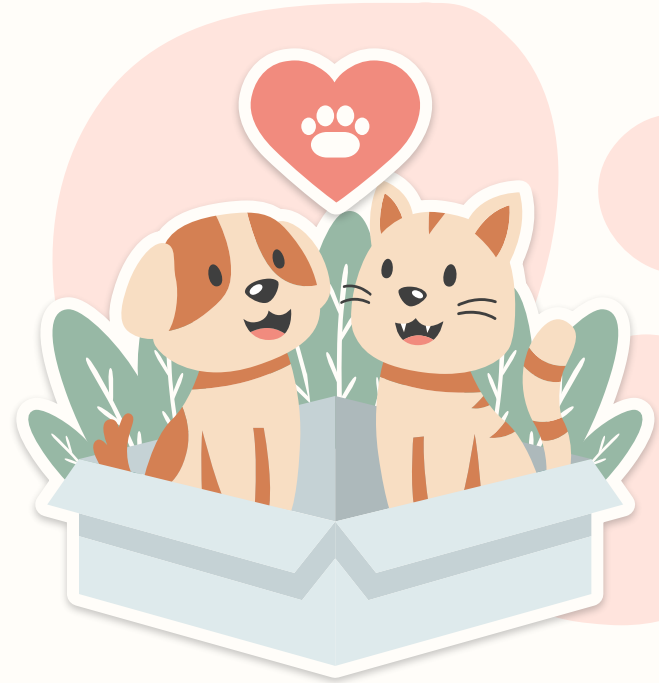
Westwood High School

Senior Independent Project Program

Summer 2022 Cohort

Emma Adamakis

Mission Statement: I will use my time in the veterinarian's office and Umass Mount Ida Vet Tech program to gain real world skills in a future career as a vet tech, to learn how to treat and interact with animals to ensure a safe and healing environment.



Mentor:

Lisa Whiting and Dr. Amy Rubin



Ella Allen

I will increase visibility and participation of women in jazz: with the help of my mentor, I will develop a presentation for 5th-8th grade band with the intent of creating a community of female artists within Westwood.

MENTOR: DR. COTE
Westwood HS Band
Director and K-12 Director of
Performing Arts for the
Westwood Public Schools



Emma Cote

I will provide a publication outlet for my articles. With the help of my mentors, Dan Shaughnessy and LJ Dawson, I will learn more about journalism, writing, and publications as a profession.

Mentors: Journalists Dan Shaughnessy, LJ Dawson

Passion: Investigative Reporting

The Boston Globe





Yvette Easton



Professor
Karen L.
Mapp

Through interaction with the Center for Arabic Culture and an online Harvard edX course, I will understand the importance of parental involvement in the learning process and its correlation to **empowering one's cultural identity**.

This project will allow for personal enlightenment and reflection; I will investigate how my identity as an Arab-American has been molded by my childhood experiences **learning Arabic**.

Izzy Feinfeld

Mission Statement: I will research the histories of local indigenous peoples, create a finished product that synthesizes the information I have learned, and teach Westwood residents about Native sites in order to combat narratives of settler replacement and educate my local community on Native history.

Indigenous History of Westwood, Massachusetts

[Home](#) [About](#) [List of Native Sites](#) [Mission Statement and Purpose](#) [Feedback](#)

Nahatan Street

Nahatan Street, the road that extends from route 109 to Norwood Center and Route 1, takes its name from a powerful Massachusetts leader named William Nahatan. William Nahatan and his family (his son Amos, his father Ahaton, his brothers Peter [Natoogus], Benjamin, and his sisters Jammewwosh [Hanna] and Tahkeesuisk) were incredibly powerful in the Westwood area and beyond, especially during the seventeenth and eighteenth century. His family name is referred to as Nahatan, Ahaton, Ahaugton, Ahauton, Ahawton, Nahanton, Ahanton, Hahaton, or Nahaughton depending on the source, which is the case because it is not originally from English, and anglicized versions of Native names tend to have all sorts of variations. The family was forced to move into the "Indian Praying Town" of Ponkapoag in the early 1600s. The Praying Town of Ponkapoag took the name of the Massachusetts village of Ponkapoag, although it was much smaller in size, and the indigenous people who lived there were Christian converts who were forced to assimilate



Mentors:

Lura Provost, Westwood Historical Society President

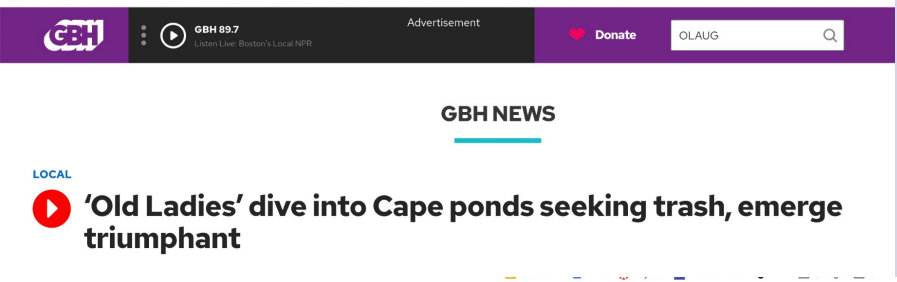
Gail Coughlin,
Natick Historical Society

Dr. J. Cedric Woods
UMass Boston

Layne Fennell

Mission Statement:


I will attend conservation-focused events and complete my internship at WCAI, which will allow me to gain experience and insight into the world of a female climate journalist, while simultaneously spreading local awareness about an issue I am passionate about.




The screenshot shows a GBH News article. The header includes the GBH logo, a play button icon, 'GBH 89.7 Listen Live: Boston's Local NPR', an 'Advertisement' label, a 'Donate' button, and a search bar with 'OLAUG'. The article title is "'Old Ladies' dive into Cape ponds seeking trash, emerge triumphant". Below the title is a video player showing a person diving into a pond. To the right of the video player is a sidebar with a play button icon, the text 'Meet OLAUG: Old Ladies Against Underwater Garbage, who dive into Cape Cod ponds', and social media sharing icons. Below the video player is a quote from a woman: "I think middle age is often seen as the age of competence. It's when you do things... And then we're s of stop," Baur reflects. "But we are heroically adventurous. And I'm not leaving the age of competence much. Not for a while."

Old Ladies Against Underwater Garbage can be reached at olaug.ma@gmail.com.

This story originally appeared on CAI. Layne Fennell contributed reporting.

 **Eve Zuckoff**

Eve Zuckoff is a [Report for America](#) fellow at our Cape Cod bureau, WCAI, covering the environment and the human impacts of climate change. She can be reached at eve_zuckoff@capeandislands.org.



Mentor: Eve Zuckoff, Reporter at NPR's station WCAI

CAROLINE KELLEHER

MISSION STATEMENT: I WILL GAIN EXPERIENCE IN MEDICAL RESEARCH BY WRITING A MEDICAL REVIEW WITH HELP FROM ONLINE RESOURCES AND COLLABORATION FROM PROFESSIONALS IN THE SCIENTIFIC PROFESSION. THIS EXPERIENCE WILL ALLOW ME TO GAIN EXPERIENCE NAVIGATING THE WORLD OF MEDICAL RESEARCH, TO FEEL MORE COMFORTABLE REACHING OUT TO MEDICAL PROFESSIONALS, AND TO EXPLORE A POTENTIAL CAREER PATH.

CONTRIBUTORS:

DR. MILLER- WHS SCIENCE TEACHER
ASMANI ADHAV- MEDICAL STUDENT



Tarra Liu

Mission Statement: I will tell a story of my choosing by choreographing a Chinese classical dance. Like other choreographers, my piece will make more room for various cultures to be properly represented on the Western stage in the future.

Mentor: Clare Lee,
Westwood Chinese School Dance Troupe
Dance Revelasian



Kaleb Maloof

Mission Statement: I will create an engineering oriented coding curriculum presented through a website, with the purpose of introducing my peers interested in engineering to how coding is incorporated into their field.

Mentor: James Looney, Westwood High School Computer Science

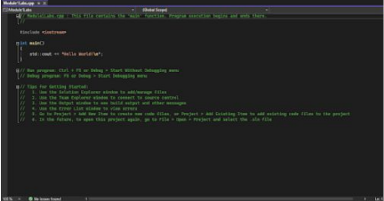
```
// ConsoleApplication1.cpp : This file contains the 'main' function. Program execution begins and ends there.
//
#include <iostream>

int main()
{
    std::cout << "Hello World!\n";
}

// Run program: Ctrl + F5 or Debug > Start Without Debugging menu
// Debug program: F5 or Debug > Start Debugging menu

// Tips for Getting Started:
// 1. Use the Solution Explorer window to add/manage files
// 2. Use the Team Explorer window to connect to source control
// 3. Use the Output window to see build output and other messages
```

Before You Start



The screenshot shows the Visual Studio IDE with a C++ project. The main window displays the code for 'ConsoleApplication1.cpp', which includes the `<iostream>` header and a `main` function that prints "Hello World!\n". The Output window at the bottom shows the program's execution, displaying "Hello World Program" and the output "Hello World!".

Preliminary Information

Before we begin coding with MATLAB we must understand the principles behind coding. Within the first half of this course you will be introduced to C++ coding using Microsoft Visual Studio. To begin, please start by following the Microsoft Visual Studio installation guide featured in the Important Links section. Important preliminary information will be provided in the slideshows below before you begin Module #1 "The Basics".

#Include <iostream>

```
int main()
{
    cout << "Hello School Committee!";
}
```

```
ain.head()
```

```
eparate x and y variables
```

```
ain_data = train.values
= train_data[:, :-1].reshape(train_data.shape[0], 1)
= train_data[:, :-1]
```

```
st_data = test.values
test = test_data[:, :-1].reshape(test_data.shape[0], 1)
test = test_data[:, :-1]
```

```
ataset shape
```

```
int("Shape of X_train :", X.shape)
int("Shape of Y_train :", Y.shape)
int("Shape of X_test :", X_test.shape)
int("Shape of Y_test :", Y_test.shape)
```

```
oefficient placeholders
```

```
= np.vstack((np.ones((X.shape[0], )), X.T)).T
test = np.vstack((np.ones((X_test.shape[0], )), X_test.T)).T
```

```
egression model with parameters of: X, Y, learning_rate, and iterations
```

```
is the size of the dataset
eta is vector of zeros/size of parameters (70,1)
returns theta parameter and cost list
```

```
f model(X, Y, learning_rate, iteration):
    m = Y.size
    theta = np.zeros((X.shape[1], 1))
    cost_list = []
    for i in range(iteration):
        y_pred = np.dot(X, theta)
        cost = (1/(2*m))*np.sum(np.square(y_pred - Y))
        d_theta = (1/m)*np.dot(X.T, y_pred - Y)
        theta = theta - learning_rate*d_theta
        cost_list.append(cost)
```

```
to print the cost for 10 times
    if(i%(iteration/10) == 0):
        print("Cost is :", cost)
    return theta, cost_list
```

```
alling model
```

```
eration = 600000
arning_rate = 0.0000000000000005
eta, cost_list = model(X, Y, learning_rate = learning_rate, iteration =
eration)
```

```
lotting cost function
```

```
g = np.arange(0, iteration)
t.plot(rng, cost_list)
t.show()
```

```
esting accuracy on test dataset
```

```
pred = np.dot(X_test, theta)
ror = (1/X_test.shape[0])*np.sum(np.abs(y_pred - Y_test))
int("Test error is :", error*100, "%")
int("Test Accuracy is :", (1- error)*100, "%")
```

Joe McEachern

Mission Statement

By interning at Northern Contracting, I will contribute my best efforts to the business and create a computer program that will assist in the formation of budgets for public construction jobs such as libraries and schools, positively impacting the greater community. I will complete the internship with a can-do, enthusiastic attitude, and I will adhere to a rigid schedule to ensure I achieve my goals.

Mentor

John Richards, Senior Estimator
at Northern Contracting



Julia Ritzenberg



Mission Statement:



I will research and report on the Westwood food scene to help shine a light on the importance of learning about local culture; my project will help the town gain a greater understanding and appreciation for how food has shaped their community.



Mentor:

Alan Flaherty-- helping me with professional interviewing tactics → worked with Long Island News and Cincinnati Eats

Final Product:

Article about local restaurants, their origin, and how they impact the community → being published in school paper



Bibi Cafe Owner



Bubbling Brook

Sofia Rosen



Mission statement: I will teach younger audiences about perspective through different characters with different views in a graphic novel. I will show that there is no right or wrong since everyone has different life experiences in order to help people with real life conflicts.

Mentor: Katrina O'Brien, Creative writing teacher at WHS



Grace
Sterling



You made Islington more interesting this summer! Thank you!

2d 1 like Reply Message

Mission Statement

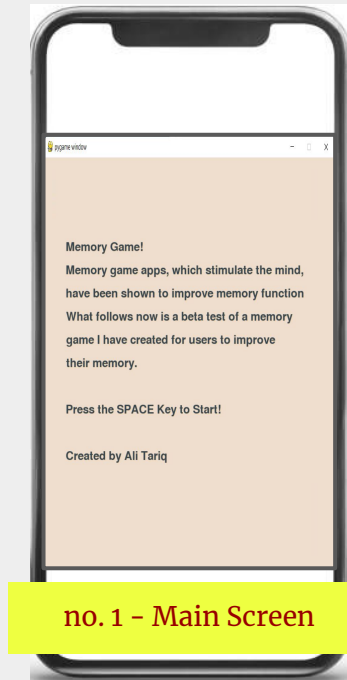
I will create an Instagram account to promote the local Islington Center businesses by posting behind the scenes content, creating IG reels to show off services offered in order to learn how to market a collection of businesses for a client.

@Islingtoncenter

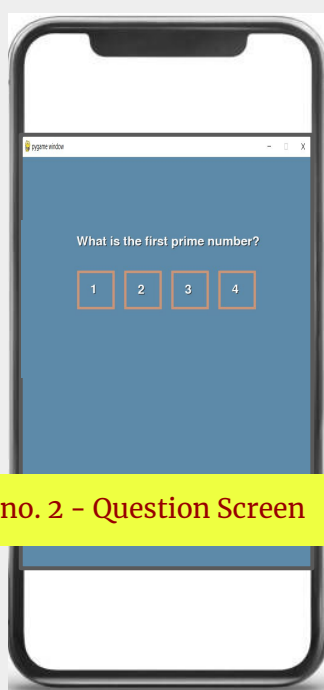


Mentor

Darcie Fisher, Public
Relations Manager at
Ellis Strategies



no. 1 - Main Screen

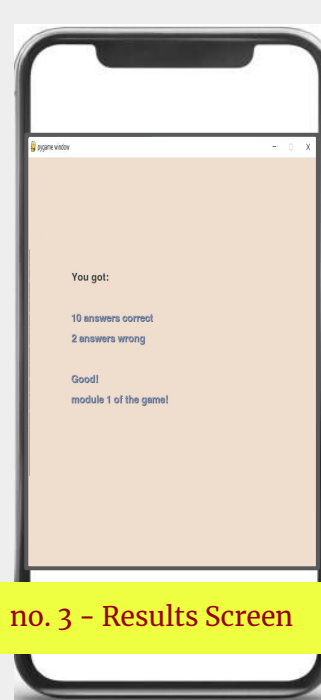


no. 2 - Question Screen

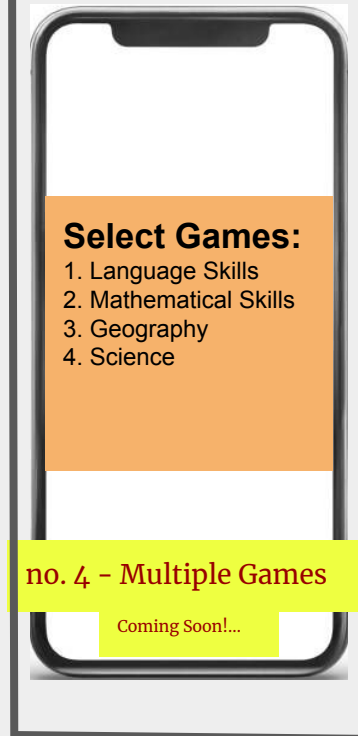
Ali Tariq

Cognitive
Enhancement
Game
Developed
Using
Python

**Mentor:
Ms. Clifford**



no. 3 - Results Screen



no. 4 - Multiple Games

Coming Soon!...

Mission Statement:

Create an application that will run 2-3 different memory games to help individuals improve their cognitive performance, slow memory decline, and retrain their brain and improve working memory skills to assist in the fight against Alzheimer's and memory loss.

References:

- Butcher, J., 2008. Mind games: do they work?. *BMJ*, 336(7638), pp.246-248.
- Deveau, J., Jaeggi, S.M., Zordan, V., Phung, C. and Seitz, A.R., 2015. How to build better memory training games. *Frontiers in systems neuroscience*, 8, p.243.
- Bonnechère, B., Langley, C. and Sahakian, B.J., 2020. The use of commercial computerised cognitive games in older adults: a meta-analysis. *Scientific reports*, 10(1), pp.1-14.