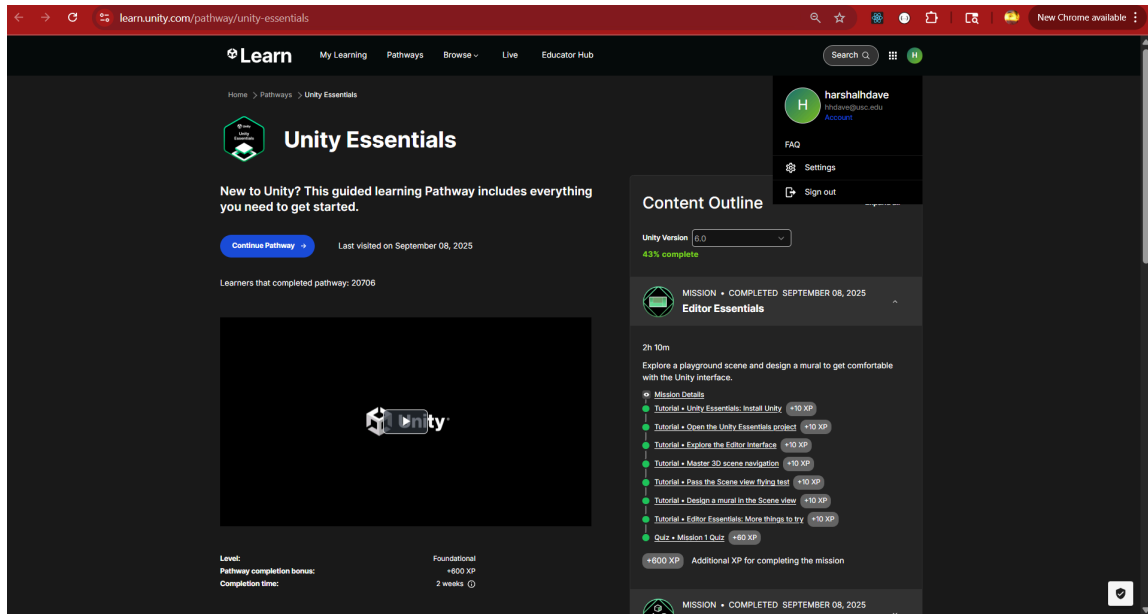


# Name: Harshal Harikrishna Dave

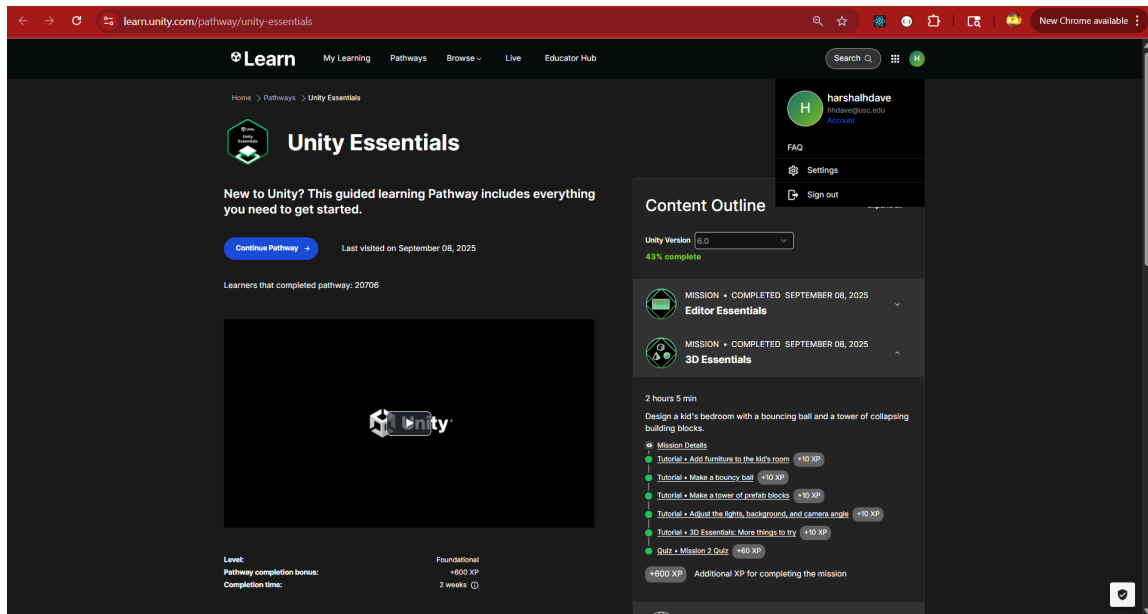
## CSCI 526 HW 1 - Unity Essentials & Junior Programming

### Unity Essentials Pathway

- Mission 1: Editor Essentials



- Mission 2: 3D Essentials



Deliverable Link: [https://harshalhdave.github.io/CSCI502HW1/Essentials\\_Mission\\_2/](https://harshalhdave.github.io/CSCI502HW1/Essentials_Mission_2/)

- Mission 4: Programming Essentials

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Home > Pathways > Unity Essentials

**Unity Essentials**

New to Unity? This guided learning Pathway includes everything you need to get started.

[Continue Pathway](#) Last visited on September 09, 2025

Learners that completed pathway: 20744

**Level:** Foundational

**Pathway completion bonus:** +600 XP

**Completion time:** 2 weeks

**Pathway Description**

Designed for anyone new to Unity, this guided learning journey is your first step toward creating confidently in the Unity Editor and bringing your visions to life. In this learning Pathway, you'll design different rooms of a house, learning the essentials of one key skillset as you complete each room.

**Content Outline**

Unity Version: 6.0

59% complete

- MISSION • COMPLETED SEPTEMBER 08, 2025  
**Editor Essentials**
- MISSION • COMPLETED SEPTEMBER 08, 2025  
**3D Essentials**
- MISSION  
**Audio Essentials**
- MISSION • COMPLETED SEPTEMBER 09, 2025  
**Programming Essentials**

1 Hour 40 Mins

Add code so that a player character can explore a living room and gather collectibles.

**Mission Details**

- Tutorial • Add a movement script +10 XP
- Tutorial • Create a rotating collectible +10 XP
- Tutorial • Collect the collectible +10 XP
- Tutorial • Programming Essentials: More things to try +10 XP
- Quiz • Mission 4 Quiz +60 XP

+600 XP Additional XP for completing the mission

MISSION  
**2D Essentials**

Deliverable Link: [https://harshalhdave.github.io/CSCI502HW1/Essentials\\_Mission\\_4/](https://harshalhdave.github.io/CSCI502HW1/Essentials_Mission_4/)

- Mission 5: 2D Essentials

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**Unity Essentials**

New to Unity? This guided learning Pathway includes everything you need to get started.

[Continue Pathway](#) Last visited on September 09, 2025

Learners that completed pathway: 20752

**Content Outline**

Unity Version: 6.0

75% complete

- MISSION • COMPLETED SEPTEMBER 08, 2025 **Editor Essentials**
- MISSION • COMPLETED SEPTEMBER 08, 2025 **3D Essentials**
- MISSION **Audio Essentials**
- MISSION • COMPLETED SEPTEMBER 09, 2025 **Programming Essentials**
- MISSION • COMPLETED SEPTEMBER 09, 2025 **2D Essentials**

1 Hour 25 Mins

Create a top-down minigame similar to the 3D living room experience, but in 2D.

**Mission Details**

- Tutorial • Set up a 2D room +10 XP
- Tutorial • Complete your 2D Puzzle Game +10 XP
- Tutorial • Add an animated pet +10 XP
- Tutorial • 2D Essentials: More things to try +10 XP
- Quiz • Mission 5 Quiz +60 XP

+600 XP Additional XP for completing the mission

**Pathway Description**

Designed for anyone new to Unity, this guided learning journey is your first step toward creating confidently in the Unity Editor and bringing your visions to life. In this learning Pathway, you'll design different rooms of a house, learning the essentials of one key skillset as you complete each room.

**Prerequisites**

Level: Foundational  
 Pathway completion bonus: +600 XP  
 Completion time: 2 weeks

Deliverable Link: [https://harshalhdave.github.io/CSCI502HW1/Essentials\\_Mission\\_5/](https://harshalhdave.github.io/CSCI502HW1/Essentials_Mission_5/)

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Unity Essentials

# Unity Essentials

New to Unity? This guided learning Pathway includes everything you need to get started.

See Completion Details

Completed on September 09, 2025

Learners that completed pathway: 20752

Unity

Level: Foundational

Pathway completion bonus: +600 XP

Completion time: 2 weeks

harshalhdave

hhhdave@usc.edu

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Content Outline

Unity Version 6.0

100% complete

MISSION • COMPLETED SEPTEMBER 08, 2025

Editor Essentials

MISSION • COMPLETED SEPTEMBER 08, 2025

3D Essentials

MISSION • COMPLETED SEPTEMBER 09, 2025

Audio Essentials

MISSION • COMPLETED SEPTEMBER 09, 2025

Programming Essentials

MISSION • COMPLETED SEPTEMBER 09, 2025

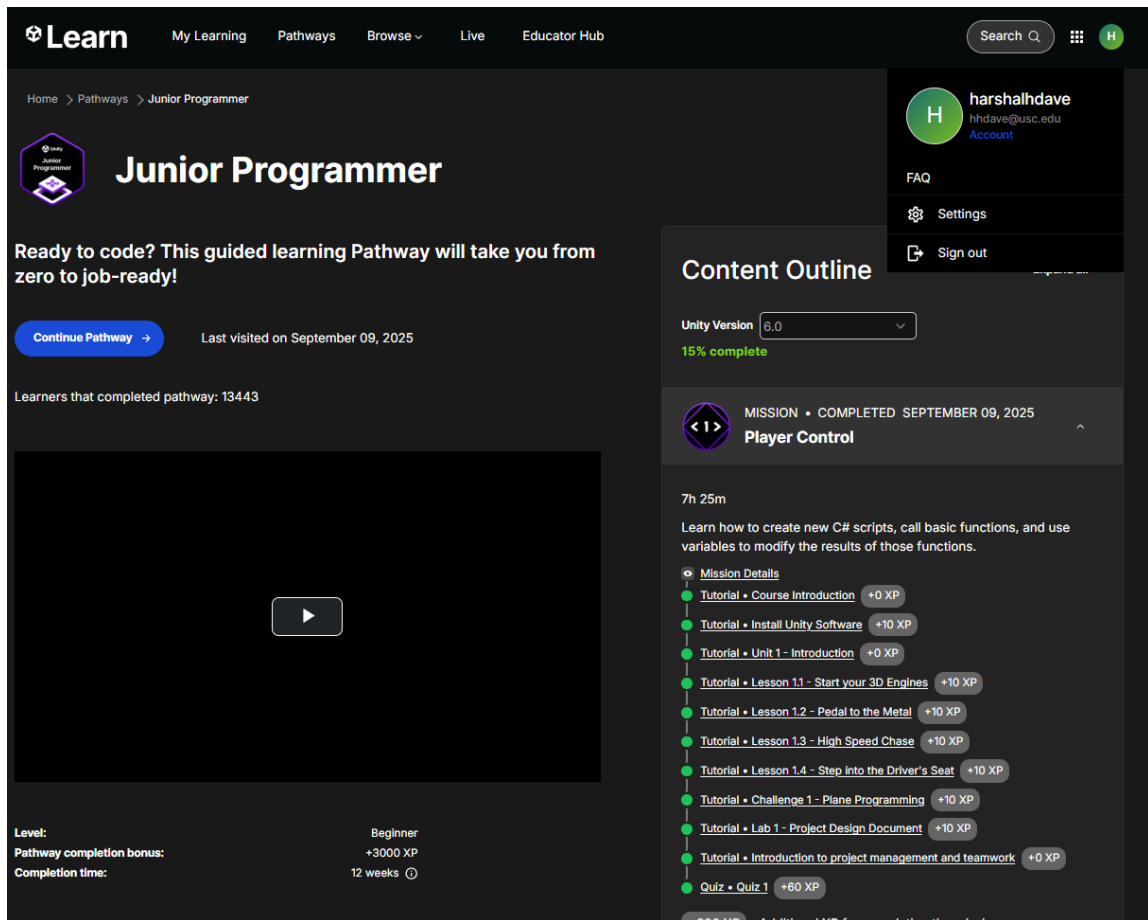
2D Essentials

MISSION • COMPLETED SEPTEMBER 09, 2025

Publishing Essentials

## Unity Junior Programming Pathway

- Car Prototype:



Deliverable Link: [https://harshalhdave.github.io/CSCI502HW1/JP\\_Car\\_Prototype/](https://harshalhdave.github.io/CSCI502HW1/JP_Car_Prototype/)

- Plane Prototype:

- The plane has some velocity without user input (non-stationary): 40
- The plane moves forward, not backward: max rotation angle =  $\pm 80^\circ$
- The plane moves at a reasonable speed (not too fast): 40
- Plane tilts with up/down arrows, and nothing else: added arrow keys as propeller direction, hence an up arrow key takes the plane in downward direction and the down arrow key takes the plane in upward direction.
- The camera is beside the plane, not in front of it: 40 units away from the plane.
- The camera follows the plane: yes
- The level has obstacles: the plane cannot cross them.

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Home > Pathways > Junior Programmer

# Junior Programmer

Ready to code? This guided learning Pathway will take you from zero to job-ready!

[Continue Pathway](#) → Last visited on September 09, 2025

Learners that completed pathway: 13443

**Level:** Beginner  
**Pathway completion bonus:** +3000 XP  
**Completion time:** 12 weeks ⓘ

## Content Outline

Unity Version: 6.0  
 15% complete

MISSION • COMPLETED SEPTEMBER 09, 2025

### Player Control

7h 25m

Learn how to create new C# scripts, call basic functions, and use variables to modify the results of those functions.

**Mission Details**

- Tutorial • Course Introduction +10 XP
- Tutorial • Install Unity Software +10 XP
- Tutorial • Unit 1 - Introduction +10 XP
- Tutorial • Lesson 1.1 - Start your 3D Engines +10 XP
- Tutorial • Lesson 1.2 - Pedal to the Metal +10 XP
- Tutorial • Lesson 1.3 - High Speed Chase +10 XP
- Tutorial • Lesson 1.4 - Step into the Driver's Seat +10 XP
- Tutorial • Challenge 1 - Plane Programming +10 XP
- Tutorial • Lab 1 - Project Design Document +10 XP
- Tutorial • Introduction to project management and teamwork +10 XP
- Quiz • Quiz 1 +60 XP

**600 XP** Additional XP for completing the mission

Deliverable Link:

[https://harshalhdave.github.io/CSCI502HW1/JP\\_Plane\\_Prototype/](https://harshalhdave.github.io/CSCI502HW1/JP_Plane_Prototype/)

- Design Doc:

[https://docs.google.com/document/d/1wmOYL\\_h\\_htvmhDRZ-7P-iF3OO\\_eTfl7ZayjydTtmgnU/edit?usp=sharing](https://docs.google.com/document/d/1wmOYL_h_htvmhDRZ-7P-iF3OO_eTfl7ZayjydTtmgnU/edit?usp=sharing)

- Introduction to Project Management and Teamwork:

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Home > Pathways > Junior Programmer




# Junior Programmer

Ready to code? This guided learning Pathway will take you from zero to job-ready!

Continue Pathway →

Last visited on September 09, 2025

Learners that completed pathway: 13435



Level: Beginner

Pathway completion bonus: +3000 XP

Completion time: 12 weeks

## Pathway Description

harshalhdave

hhdave@usc.edu

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## Content Outline

Unity Version: 8.0

1% complete

< 1 >

MISSION

Player Control

7h 25m

Learn how to create new C# scripts, call basic functions, and use variables to modify the results of those functions.

Mission Details

Tutorial • Course Introduction +0 XP

Tutorial • Install Unity Software +10 XP

Tutorial • Unit 1 - Introduction +0 XP

Tutorial • Lesson 1.1 - Start your 3D Engines +10 XP

Tutorial • Lesson 1.2 - Pedal to the Metal +10 XP

Tutorial • Lesson 1.3 - High Speed Chase +10 XP

Tutorial • Lesson 1.4 - Step Into the Driver's Seat +10 XP

Tutorial • Challenge 1 - Plane Programming +10 XP

Tutorial • Lab 1 - Project Design Document +10 XP

Tutorial • Introduction to project management and teamwork +0 XP

Quiz • Quiz 1 +60 XP

+600 XP

Additional XP for completing the mission