Your Course Syllabus

CODDY - International Coding and Design School for Teen and Kids

Game creation with AI Course. Module 1

Learning goals get to know how to create games using artificial intelligence, design the basis for your own game, including the idea and concept, 3D modeling and Unreal Engine level design

Course Syllabus:

Day one

Introduction to AI technology

− Introduction to AI technology concept
− History of the development of generative artificial intelligence
− Cases of generative AI use
− Analysis of modern artificial intelligence services and their applications

Learning outcomes: got basic ideas about modern generative artificial intelligence.
Practical task: try to "talk" with the AI chatbot and sign up in image generation service to generate your first image.

Day two

AI tool as a game designer's assistant

− Generation of ideas for the future game
− Selection of game mechanics and calculation of difficulty balance
− Narrative, story context and plot scenario
− AI assistance in solving technical aspects of the game

Learning outcomes: we learned how to use AI tools to solve the main tasks of a game designer.
Practical task: develop a concept and description of your game using AI.

Day three

Generating text content for video games

− Plot and story development
− Description of characters, game objects
− Description of game events, preparation of dialogues
− Player training and additional texts

Learning outcomes: we gained skills in preparing the text content of video games using AI.
Practical task: create a text description of the game's plot and a description of the main character using AI.

Day four

Generating concept art using AI

− Creating sketches, concept art of game objects, working on their style
− Development of the concept art of the key characters of the game
− Preparation of graphic sketches of game locations
− Creation of additional art works

Learning outcomes: studied the ways of using neural networks to concept art generation.
Practical task: create game concept arts for game location with three objects and 3 pictures of characters in various situations.

Your Course Syllabus

CODDY - International Coding and Design School for Teen and Kids

Game creation with AI Course. Module 2

Learning goals get to know how to create games using artificial intelligence, design the basis for your own game, including the idea and concept, 3D modeling and Unreal Engine level design

Course Syllabus:

Day one

Generation of graphic content for video games

– Creation of the main game interface
– Adding HUD interface elements: buttons, icons, status bars
– Functional interface elements: inventory, items, characters
– Additional interface elements, meta interface

Learning outcomes: learned to generate graphical interface elements.
Practical task: create a set of game interface elements using AI.

Day two

Generation of 3D game models and textures

– Generate textures for 3D models using text prompts
– 3d modeling based on a 2D concept, based on a picture
– Download and check the generated 3d model in the editor

Learning outcomes: studied the prompts for generation of 3d models and textures.
Practical task: develop 3d game models for the game environment using AI.

Day three

Game voices generation

– Exploring the capabilities of AI to convert text into voice, create the game voiceover
– Voice acting of characters' replicas and dialogues
– Additional sound effects of game events

Learning outcomes: got acquainted with the possibilities of AI voice generation for games.
Practical task: to voice the game dialogue of the characters in different voices.

Day four

Generating original soundtracks

– Choice of musical style, genre for the theme of the game
– Auto-generation of soundtracks using AI
– Changing the soundtrack (customization and auto-mastering)

Learning outcomes: acquired the skills of soundtracks generation.
Practical task: record a game background soundtrack in ambient style using AI, create 3 game compositions in the ambient genre.

Your Course Syllabus

CODDY - International Coding and Design School for Teen and Kids

Game creation with AI Course. Module 3

Learning goals get to know how to create games using artificial intelligence, design the basis for your own game, including the idea and concept, 3D modeling and Unreal Engine level design

Course Syllabus:

Day one

AI-based generation of game asset following a pipeline

– Basics of working with the Unreal Engine 4
– Development of the simplest game mechanics
– Game level asset generation following pipeline using AI

Learning outcomes: we learned how to create a game level asset by pipeline using AI generation.
Practical task: using previously studied AT tools, create a game object 3d model, its text description, voice acting, 2d image to display in the interface, followed by loading and combining into a single game entity in Unreal Engine 4.

Day two

Uploading generated content to Unreal Engine 4

– Creating game structure and composition of the level with the Unreal Engine 4
– Loading the generated game level into the engine and setting up
– Building the complete game level

Learning outcomes: we learned how to build a game level using content generated by AI.
Practical task: build your video game level with generated content with Unreal Engine.

Day three

Testing, tuning and building personal level with Unreal Engine 4

– Testing personal level for errors
– Tuning, refining and correcting errors in your level
– Build your own complete level

Learning outcomes: in practice, we consolidated the studied material and got the result.
Practical task: create the final assembly of your game level with generated content with the Unreal Engine 4.

Day four

Project presentation. Course results

– Presentation of the final project.
– Discussion of the results of the work, answers to questions
– Summarizing the course results
– Further development and study in the field of content generation and game design

Learning outcomes: we presented the projects created during the course, received feedback and recommendations for further learning.
Practical assignment: participation in the presentation of projects created during the course.