# MICHELE MORISCO

GAMEPLAY/AI/AR PROGRAMMER

Final year student in Artificial Intelligence and Machine Learning with a 26.75 grade-point average and is working on the thesis. In free time, develop an indie game as a lead programmer. Good communication skills, problem-solving, and teamwork acquired over the years with 10+ academic and personal projects and with three Game Jams.

## CONTACTS


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## SOFT SKILLS

- Communication
- Teamwork
- Time management
- Problem-solving
- Planning

## HARD SKILLS

- C, C++, C#, Python, Java
- Web development: HTML, CSS, JavaScript
- Pytorch, Tensorflow, Scikit-learn
- Kaggle, Google Colab, Jupyter
- Unity
- Google ARCore, Vuforia
- Project management: Agile methods
- Photoshop

## EDUCATION

M.SC. IN ARTIFICIAL INTELLIGENCE

University of Pisa | 2020 - Ongoing

B.SC. IN COMPUTER SCIENCE

University of Pisa | 2014 - 2020

## CERTIFICATES

TRAINING COURSE IN GAME DESIGN

University of Pisa | 2021

## LANGUAGES

ITALIAN - NATIVE

ENGLISH - B2

## EVENTS

GMTK GAME JAM 2023

IF GAME JAM 2019

GLOBAL GAME JAM 2019

## PROJECTS

### Thesis - Recovering Physical Prop

SUN aims to investigate and develop **Extended Reality** solutions. My thesis focuses on recovering physical properties from props, developed with the Visual Computing Lab of CNR-Pisa and the School of Advanced Studies Sant'Anna. Currently, I'm preparing the environment for the experiments.

- Modeled a 3D box as a tester using **OpenSCAD**.
- Created a tool in **C++** using **QT Creator** and **OpenCV** library to calibrate cameras, measure an object position according to camera images, and compute the mass distribution.

### Playing retro games with Dueling DQN

"Intelligent Systems for Pattern Recognition" course's project.

- Learned to use OpenAI Gym and the **Reinforcement Learning** principles. Achieved about 130% of the score compared to DQN scores for the Boxing game.
- Implemented different **DQN** versions such as **Dueling DQN** for learning an agent how to play some Atari and NES games over 2 months.

### Cubic stylization: Improving mesh quality

"3D Geometry Modeling and Processing" course's project.

- Implemented a new plugin for MeshLab with **C++** over 2-months. Successfully delivered on Visual Computing Lab's **git** and currently, it is present in the last official release.
- Using **Qt Creator** to develop the plugin.

### PokéBusters

"Human-Machine Interaction" course's project. An **augmented reality** web minigame.

- Designed and developed autonomously the minigame in **HTML** and **JavaScript** using the **Three.js** library over 3-weeks.

### Hisuian Tales

Lead programmer

- Designed a **2D platform** game in a 2-person team over 3 months. Successfully delivered on Itch.io. The game recognizes a specific drawn symbol to give a temporary power to the player for overcoming the obstacles.
- Addressed each **technical aspect** of the game using **Unity**, from the player's movement to the enemys' AI. Before, it used the **$Q Recognizer** algorithm to recognize the symbols, and then now the system is using a **CNN**.
- Worked on the **level** and **game design**, defining the puzzles and challenges.

### Judith

Lead programmer

- Designing a **2D puzzle** and **procedural narrative** game with **platforming** elements in a 3-person team. Currently in progress with a first playtest success launch.
- Addressing each technical aspect of the game using **Unity**, from the player's movement to the NPCs' AI, such as the **NPCs' navigation system** and the **dialogue system**.
- Designing an AI model that recognizes a user textual prompt.
- Working on the **level** and **game design**, defining a **Game Design Document**.