

MICHELE RIGHI

Computer Engineer with 6+ years of coding experience; passionate about graphical/game development and open source, proficient in a variety of libraries and frameworks; motivated geek who loves solving problems and gathering knowledge and competences; currently seeking for a traineeship experience in a challenging work environment.



CONTACT

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 Michele Righi

SKILLS

Programming

C
Java
SQL
Bash
HTML/CSS
JavaScript
C#
Dart
Python
C++
Go
Kotlin
Prolog

Operating Systems

Windows
Linux
"Android"

Software, Frameworks & Tools

JavaFX
SDL2
Unity
Flutter
GitHub
Gradle
Microsoft 365
Microsoft Azure
Docker
OpenGL

Languages

Italian
English
French

CERTIFICATES

IELTS Academic 7.0
(ID: 22IT002691RIGM010A)
Unity Essentials
DataCamp Python Fundamentals

EDUCATION

2021-09 - present
 Alma Mater Studiorum,
University of Bologna, Italy
Master of Computer Engineering

2017-09 - 2021-03
 Alma Mater Studiorum,
University of Bologna, Italy
Bachelor of Computer Engineering

WORK HISTORY

2016 - 2020
 Michele Righi, Republic of San Marino
Sales clerk & cashier
I worked in my dad's light armory shop (it was a small family business). The job was on call, during summer.

2016 - present
 Michele Righi, Republic of San Marino
Scrutineer & election assistant

PROJECTS HIGHLIGHTS

2022-10 - present
 Innovation and Project Management M
Pack-a-Punch: Moddy
Moddy is a modular packaging box born to meet the needs of the distribution of humanitarian aid. Its modules can be broken down to create objects for various (re)uses.

2022-08 - 2023-04
 Software Systems Engineering M
Team BCR: WasteService
WasteService is a distributed and heterogeneous system for a differentiated waste-disposal service. We worked in a team of 3, following Scrum Agile methodology.

ACHIEVEMENTS, HONOURS AND AWARDS

Our project Moddy won (classified 1st out of 14) the **Innovation and Project Management Competition 2022**

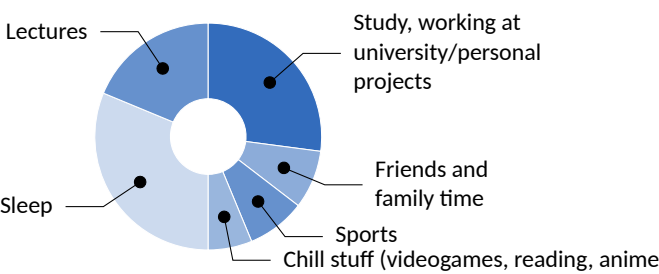
Our project Moddy was selected (classified 19th out of 97 emerging ideas) for the **Call for Startup 2023**

Our team won the **Alma Mater Fest 2022 volleyball tournament**

GENERAL SKILLS

Problem solving Creativity Eye for detail Teamwork Agile scrum
Design patterns and principles DevOps

A COMMON DAY OF MY LIFE



ALL PROJECTS

Computer Graphics Lab

📅 2023-03 - 2023-10
📖 Principles Of Computer Graphics M
🔗 GitHub Repository

This repository contains 7 projects that address many fundamental aspects of computer graphics, both 2D and 3D.

Computer Graphics Pipeline-Based Rendering Ray-Tracing
C/C++ OpenGL Blender

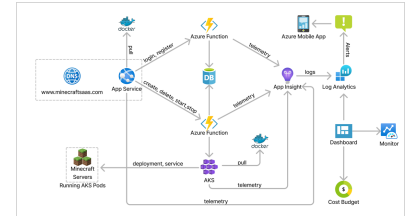


Minecraft SaaS

📅 2023-05 - 2023-07
📖 Scalable and Reliable Services M
🔗 GitHub Repository

Minecraft Software as a Service (SaaS) is a cloud-based hosting service for Minecraft servers, powered by **Microsoft Azure** and **Kubernetes**.

Scalability Reliability DevSecOps Microservices
Microsoft Azure Kubernetes C# ASP.NET Next.js



Punchline!

📅 2023-04 - 2023-05
🔗 GitHub Repository
🎮 LudumDare 53 entry

Punchline! is a game about an amateur comedian that tries to tell his best joke (delivery of a punchline) while dealing with a particularly difficult audience. We made it for the **LudumDare53** game jam, in **72 hours**, about the theme "delivery", and we used only **assets made by our team**.

Game jam Blender Unity C#



Pack-a-Punch: Moddy

📅 2022-10 - present
📖 Innovation and Project Management M
🔗 GitHub Repository
🔗 LinkTree

Moddy is a modular packaging box born to meet the needs of the distribution of humanitarian aid. Its modules can be broken down to create utility objects, making the box **reusable**. The project includes a prototype of an application used to build boxes and track inventory.

Innovation Startup Business plan Unity C#

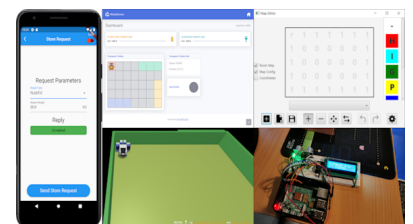


Team BCR: WasteService

📅 2022-08 - 2023-04
📖 Software Systems Engineering M
🔗 GitHub Repository
🎥 Demo Video

WasteService is a **distributed and heterogeneous system** for a differentiated waste-disposal service.

Agile SCRUM Domain Specific Languages Raspberry Pi4
Design Patterns Design Principles Java Spring Boot
JavaFX Kotlin Flutter Python C MQTT CoAP



Poké-Pi-Dex

📅 2021-07 - 2021-12
📖 Digital Systems M
🔗 GitHub Repository
🎥 Presentation Video

Poké-Pi-Dex is device that emulates a Pokédex: it can classify Pokémon from the first generation through a picture. It runs on a **Raspberry Pi4** with a **picamera** and other components attached, and we also made a fancy cardboard case to fit it in.

Deep learning Computer vision CNN Raspberry Pi4
Python Keras OpenCV Tensorflow Tkinter



Gionnino9000: Tavoletta

📅 2022-04 - 2022-05
📖 Foundations Of Artificial Intelligence M
🔗 GitHub Repository

Tavoletta is an AI player that can play the boardgame *Tablut* with *Ashton's rules*. We implemeneted it for the AI Tablut Challenge 2022.

Java Artificial Intelligence MinMax Alpha-Beta pruning
Iterative deepening

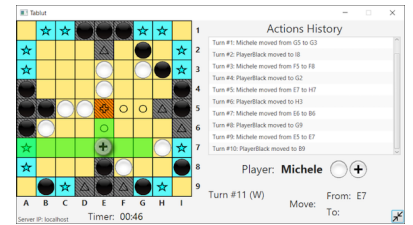


Tablut GUI Client

📅 2022-12 - 2022-12
🔗 GitHub Repository

Tablut GUI Client is a **JavaFX** application to play the boardgame *Tablut* using a graphical interface. The project was made as an extension to the program provided by the professor, which only had the CLI.

Java JavaFX Multiplayer TCP Client-server

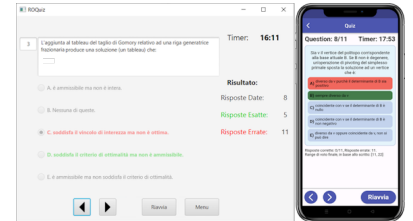


ROQuiz

📅 2021-07 - present
📖 Operations Research M
🔗 GitHub Repository

ROQuiz is a graphical quiz application I made to help me and my university colleagues revising the theory of the course *Operations Research M*.

Java JavaFX Flutter Dart 750+ downloads

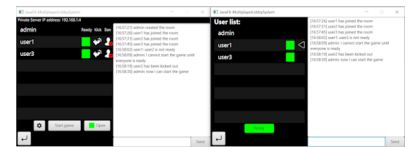


JFX Multiplayer Lobby System

📅 2021-08 - 2022-09
🔗 GitHub Repository

JavaFX Multiplayer Lobby System is a **JavaFX** application that allows users to create and join lobbies, through **TCP sockets** and **multithreading**. I made it in order to implement the multiplayer gamemode in *Cluedo*.

Java JavaFX Multiplayer TCP Multithreading



SDL2 Controller Tester

📅 2021-06 - 2021-06
🔗 GitHub Repository
📺 Demo Video

SDL2 Controller Tester is a small CLI application I made to test my PlayStation3 controller. It can test any controller that the system recognize and logs its various inputs (connection and disconnection included) and haptic vibration.

C SDL2



Unity DOTS BSc Thesis

📅 2020-11 - 2021-03
📖 Web Technologies T
🔗 GitHub Repository

Project I made for my BSc degree thesis about **Unity Data-Oriented Technology Stack (DOTS)** architecture. The goal was to analyze the new data-oriented layout provided by the ECS model and create a multiplayer game prototype based on DOTS.

Unity DOTS C# Data-oriented ECS model Netcode



Cluedo

📅 2020-04 - 2020-06
📖 Software Engineering T
🔗 GitHub Repository

Cluedo is a prototype of a graphical application to play the boardgame *Cluedo*. Given the limited time, we didn't complete the gameplay part, which was left with basic functionalities to show a demo play.

Java JavaFX MVC pattern Waterfall model UML

