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

- righi.michele98@gmail.com
- +39 353 4263738
- 47890 San Marino (RSM)
- @mikyll
- 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

BEST PROJECTS

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.
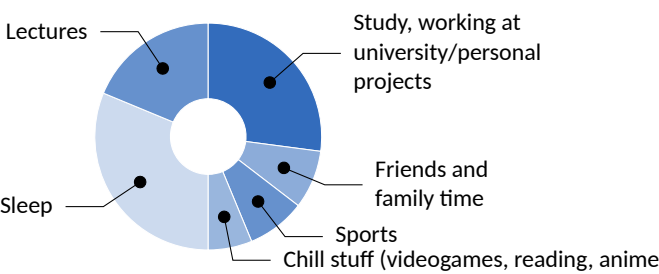
ACHIEVEMENTS, HONOURS AND AWARDS

- 🏆 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

- Lectures
- Study, working at university/personal projects
- Sleep
- Friends and family time
- Sports
- Chill stuff (videogames, reading, anime)

OTHER PROJECTS

Punchline!

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

Punchline! is a game some university-colleagues-friends of mine and I made for the game jam *LudumDare53*. The jam consisted in making a game in **72 hours** about the theme "Delivery", possibly using only assets we made by ourselves. 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 with **Unity** and we created every single asset (**3d models, sprites, sfx, vfx, scripts, etc.**) by ourselves.

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 objects for various (re)uses, preventing the box from being simply thrown away. We made it for the IPM course challenge: we classified **1st out of 14** and got selected for the **Call for Startup 2023** (19th/97). The task was to think and design an innovative product for a smart box, make a business plan and present it to the audience. We also created a prototype for a desktop and mobile application using **Unity**.

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. The objective was to build, as a team of 3, a complete software system according to a list of requirements provided by a customer. To fulfill the task we adopted **Agile Scrum Methodology**, partitioning the project in 3 sprints: for each one we carried out the **analysis**, **project** and **deployment**, creating many different libraries and applications, as if we were a software house.

Poké-Pi-Dex

📅 2021-07 - 2021-12
📓 Digital Systems M
⎇ GitHub Repository
🔗 Presentation Video

Poké-Pi-Dex is a **computer vision** project I made with a university colleague of mine: we gathered thousands of Pokémon pictures from the first generation, applied different transformations to get the dataset and used it to train a **deep learning** model using **tensorflow**. We then created a python graphical application capable of displaying the video output and make a prediction from a frame, and made it run on a **Raspberry Pi4**. We also made a nice **cardboard case** to fit the RPi with its components in it.

Gionnino9000: Tavoletta

📅 2022-04 - 2022-05
📓 Foundations Of Artificial Intelligence M
⎇ GitHub Repository

Tavoletta it's the player our team Gionnino9000 implemented for the AI Tablut Challenge 2022: it consists of an artificial intelligence that is capable of playing the boardgame *Tablut* with *Ashton's rules*. The project was written in **Java** with **AIMA** libraries, on top of a game engine provided by the professor. Our solution exploited **MinMax with Alpha-Beta Pruning** as decision algorithm and **Iterative Deepening** as exploration algorithm.

Tablut GUI Client

📅 2022-12 - 2022-12
⎇ GitHub Repository

Tablut GUI Client is a **JavaFX** extension I made for the Tablut project provided by the professor, to allow playing the game with a graphical interface. This application prompts the user to enter player information, then attempts a connection to the server. When both black and white players are connected, the board gets populated and the game starts. The UI shows the current state of the game and some other information. When in its turn, the player can select one of its pawn and the possible actions are highlighted.
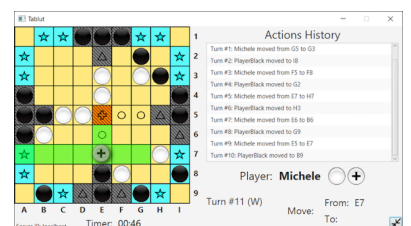
ROQuiz

📅 2021-07 - 2022-09
📓 Operations Research M
🜂 GitHub Repository

ROQuiz is a graphical quiz application I made to help me and my university colleagues revise the theory of the course *Operations Research M*. It started as a simple **JavaFX** desktop application, but then I added more and more functionalities (topics subdivision, settings, themes, etc.) and ported it to mobile using **Flutter** framework. It helped many other students and currently (2023-05) has **450+ downloads**.
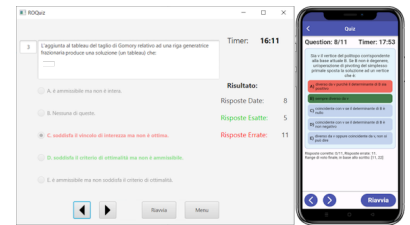
JFX Multiplayer Lobby System

📅 2021-08 - 2022-09
🜂 GitHub Repository

JavaFX Multiplayer Lobby System is a **JavaFX** graphical application I made as a support to implement the multiplayer mechanics in the Cluedo game, using **TCP sockets** and **multithreading**. This project allows the user to create (server) or join (client) a lobby and access the chat. The server can manage the lobby by closing/opening it, kicking out or banning players, and can start the game (all players must be ready). The application also greacefully handles disconnections and network errors.
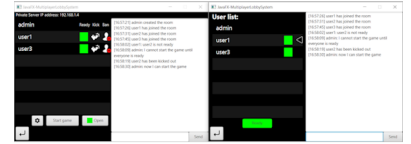
SDL2 Controller Tester

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

SDL2 Controller Tester is a small application I made to test my PS3 controller. It logs the controller various inputs (connection and disconnection included) and can test the haptic vibration. I implemented it using **C** and **Simple DirectMedia Layer (SDL) library**, trying to make the project structure as clean as possible.

Unity DOTS BSc Thesis

📅 2020-11 - 2021-03
📓 Web Technologies T
🜂 GitHub Repository

Project I made for my bachelor's degree thesis, involving the recent **Unity DOTS architecture**. The goal, in addition to analyze the new **data-oriented** layout provided by the **ECS model**, was to create a working multiplayer game prototype, made entirely using DOTS. Besides that, I also created a stress-test project, to profile the performances of this architecture.

Cluedo

📅 2020-04 - 2020-06
📓 Software Engineering T
🜂 GitHub Repository

Project our team of 3 made for the Software Engineering course. The task was to design and develop an application following the classical **waterfall model** (requirements, analysis, design, implementation, testing, deployment, maintenance). We tried to adopt **design** patterns, **design principles**, and exploited UML diagrams. The implementation consisted in a prototype of the game made using **JavaFX** based on **MVC** pattern.