# MARTINA BAIARDI

### Research Fellow

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## **EDUCATION**

M.Sc. in Engineering and Computer Science

**2**020-2023

♥ Cesena, Italy

University of Bologna

110L/110

Thesis: JACOP: Programming BDI Agents with Pluggable Concurrency Model

Supervisor: Giovanni Ciatto

Co-Supervisors: Andrea Omicini, Jomi F. Hübner

Curricular Internship

University of Bologna

**1** 03-05/2020

♥ Cesena, Italy

Study of a Kubernetes cluster: main aspects, tools and realization of a cluster on virtual machines

B.Sc. in Engineering and Computer Science

University of Bologna

**2017–2020** 

♥ Cesena, Italy

110L/110

Thesis: Kubernetes cluster autoscaling and management: a case study

Supervisor: Vittorio Ghini

Accounting degree in Business Information Sys-

tems

**2017** 

♥ Cesena, Italy

ITE "R. Serra"

11E R. Sei 100/100

## **PUBLICATIONS**

M. Baiardi, S. Burattini, G. Ciatto, and D. Pianini, in "JaKtA: BDI agent-oriented programming in pure Kotlin". In: European Conference on Multi-Agent Systems. Multi-Agent Systems: 20th European Conference, EUMAS 2023, Naples, Italy, September 14–15, 2023.

**1** Paper submitted for publication

## RESEARCH CONTRACTS

Research Scholarship for software integration and service administration for StairwAI project

**1** 01-07/2023

♥ Cesena, Italy

DISI - University of Bologna

Supervisors: Andrea Borghesi, Giovanni Ciatto

## **TEACHING**

Tutor for the course "Object-Oriented Programming"

DISI - Laurea in Ingegneria e Scienze Informatiche

**⊞** A.Y. 2022/2023

♥ Cesena, Italy

University of Bologna Supervisor: Mirko Viroli

Tutor for the course "Virtualized Systems"

DISI - Laurea in Tecnologie dei Sistemi Informatici

University of Bologna

ci # A.Y. 2021/2022, A.Y. 2022/2023

♥ Cesena, Italy

Supervisor: Vittorio Ghini

Tutor for the course "Numerical Methods"

DISI - Laurea in Ingegneria e Scienze Informatiche

University of Bologna

Supervisor: Lucia Romani

**A**.Y. 2021/2022

• Cesena, Italy

## PREVIOUS WORK EXPERIENCE

Web Developer

Blockvision

**2020–2022** 

♥ Cesena, Italy

Website implementation with prototype 3D graphic rendered in-browser Keywords: Vue.js, HTML, CSS, Javascript, PrimeVue, Three.js

• Work done during the studies

Waitress

Il Localino

• Work done during the studies

Bartender

Rockin Park

• Work done during the studies

Wardrobe Attendant

Vidia Club

• Work done during the studies

**2019–2021** 

**♀** Gambettola, Italy

• Cesena, Italy

Winter 2016 - 2019

**Summer** 

2017-2019

• Cesena, Italy

## PROFESSIONAL SKILLS

r rogramming Languages	Kotlin, Java, Scala, Javascript, C, Bash, Python, PHP, Sql, Prolog, C#, C++

Other Languages	Markdown, Y.	AML, LATEX,	HTML,	CSS, XML,	JSON

Technologies	Git, Docker, Kubernetes, Ansible, Android, Vue, Spring,	Jacamo, Ja-
	son	

Object Oriented Programming, Functional Programming, Agent Oriented Programming, Logic Programming, Event Driven Programming,

Imperative/Procedural Programming

Project Management Scrum, Agile

# **PORTFOLIO**

**Programming Paradigms** 

### JaKtA

github.com/jakta-bdi 10/2022-03/2023

Jason-like Kotlin Agents (JaKtA): a Kotlin internal DSL meant to seamlessly integrate BDI agents into a mainstream programming language, thus adding AOP to Kotlin as an additional paradigm, retaining its toolchain, libraries, and OOP/FP abstractions. The project was made for academic purposes for the "Intelligent System" Engineering" course and then extended for the Master Degree Thesis.

• Paper submitted for publication to EUMAS 2023 conference

Language: Kotlin

Keywords: Domain Specific Language, Gradle Multi-Project, Domain Driven Design

#### **Smart Waste Collection**

github.com/SmartWasteCollection

smartwastecollection.github.io/documentation

04-10/2022

The aim of the project was to optimize the management of waste collection using **Digital Twins** over a simulated environment. The project was made for academic purposes for "Laboratorio dei Sistemi Software" and "Pervasive Computing" courses.

Language: Kotlin

Keywords: Digital Twins, Microservices, Azure Cloud, CI/CD, Domain Driven Design

### **Smart Subway**

01-02/2022

The objective was to create a smart system for the management and monitoring of metropolitan stations. The topic was used for the development of two projects for two different Master Degree courses: the first was "Smart City e Tecnologie Mobili" course regarding an implementation using AWS technologies, the second was "Project Management" course to carry out all Project Management Lifecycle phases.

Keywords: AWS Cloud, IoT, RFID

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#### Bunny Survival

github.com/anitvam/pps-bunny

08-10/2021

An open-source simulator of a bunny population made for academic purposes under the course "Paradigmi di Programmazione e Svilupp" inspired from the interactive simulator <u>Natural Selection</u> developed by University of Colorado.

Language: Scala Keywords: Scrum

Keywords: Scrum

#### Ca' Foscari Jisho

% jisho.unive.it

05-07/2021

Web application for italian-japanese translations made for academic purposes under the course "Applicazioni and Servizi Web" in collaboration with the research group **EDRDG** of **Ca' Foscari University** in Venice, Italy.

Keywords: Vue, Docker, Ansible, Javascript, Agile

### INTERESTS

 Kubernetes
 CI & CD
 Microservices
 User Experience and User Interface
 Design
 Photography