

# MARTINA BAIARDI

## Research Fellow

@ martina.baiardi.98@gmail.com

📍 Cesena, Italy

🌐 github.com/anitvam

in linkedin.com/in/martina-baiardi

## EDUCATION

M.Sc. in Engineering and Computer Science

📅 2020–2023

📍 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

📅 03–05/2020

📍 Cesena, Italy

University of Bologna

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

B.Sc. in Engineering and Computer Science

📅 2017–2020

📍 Cesena, Italy

University of Bologna

110L/110

Thesis: Kubernetes cluster autoscaling and management: a case study

Supervisor: Vittorio Ghini

Accounting degree in Business Information Systems

📅 2017

📍 Cesena, Italy

ITE "R. Serra"

100/100

## PUBLICATIONS

M. Baiardi, S. Burattini, G. Ciatto, and D. Pianini, in “JaKtA: BDI agent-oriented programming in pure Kotlin”. In: Advances in Practical Applications of Agents, Multi-Agent Systems, and Complex Systems Simulation. The PAAMS Collection: 21th International Conference, PAAMS 2023, Guimarães, Portugal, July 12–14, 2023.

📌 Paper submitted for publication

## RESEARCH CONTRACTS

Research Scholarship for software integration and service administration for StairwAI project

📅 01–07/2023

📍 Cesena, Italy

DISI - University of Bologna

Supervisors: Andrea Borghesi, Giovanni Ciatto

## TEACHING

Tutor for the course “Object-Oriented Programming”

📅 A.Y. 2022/2023

📍 Cesena, Italy

DISI - Laurea in Ingegneria e Scienze Informatiche

University of Bologna

Supervisor: Mirko Viroli

Tutor for the course “Virtualized Systems”

📅 A.Y. 2021/2022,  
A.Y. 2022/2023

📍 Cesena, Italy

DISI - Laurea in Tecnologie dei Sistemi Informatici  
University of Bologna

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

 2020–2022

 Cesena, Italy

**Blockvision**

Website implementation with prototype 3D graphic rendered in-browser

**Keywords:** Vue.js, HTML, CSS, Javascript, PrimeVue, Three.js

 Work done during the studies

Waitress

 2019–2021

 Gambettola, Italy

**Il Localino**

 Work done during the studies

Bartender

 Summer  
2017–2019

 Cesena, Italy

**Rockin Park**

 Work done during the studies

Wardrobe Attendant

 Winter  
2016–2019

 Cesena, Italy

**Vidia Club**

 Work done during the studies

## PROFESSIONAL SKILLS

**Programming Languages**

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

**Other Languages**

Markdown, YAML, L<sup>A</sup>T<sub>E</sub>X, HTML, CSS, XML, JSON

**Technologies**

Git, Docker, Kubernetes, Ansible, Android, Vue, Spring, Jacamo, Jason

**Programming Paradigms**

Object Oriented Programming, Functional Programming, Agent Oriented Programming, Logic Programming, Event Driven Programming, Imperative/Procedural Programming

**Project Management**

Scrum, Agile

## PORTFOLIO

**JaKtA**

 [github.com/jakta-bdi](https://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 PAAMS 2023 conference

**Language:** Kotlin

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

### Smart Waste Collection

 [github.com/SmartWasteCollection](https://github.com/SmartWasteCollection)

 [smartwastecollection.github.io/documentation](https://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

---

### Bunny Survival

 [github.com/anitvam/pps-bunny](https://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 Natural Selection developed by University of Colorado.

**Language:** Scala

**Keywords:** Scrum

---

### Ca' Foscari Jisho

 [jisho.unive.it](https://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

---