

# Manuel Arto

## ABOUT ME

Master's student in Computer Science at the University of Bologna and part-time Full-stack Developer at Archeion.

I have professional experience in software development, with specific interests in backend programming and blockchain.

## WORK EXPERIENCE

FEB 2024 - PRESENT

Archeion, Bologna

### Full-stack Web3 Developer

- Built the entire MVP mobile app for vendors using Ionic and Angular in under 3 months.
- Improved creation of schemas for 10+ clients by designing a custom JSON schema form renderer.
- Designed a scalable URL shortening service, securing over 10 million active URLs.
- Converted customer app to an SSR setup; implemented a Redis-backed cache for Dynamic on-demand translation of labels.
- Developed the prototype for the EU-funded ZONIA project ("Zero-Trust Oracle System for Blockchain IoT"): smart-contract protocol and off-chain oracle code.

NESTJS · REDIS · SOLIDITY · ANGULAR

SEP 2021 - SEP 2023

Net Service, Bologna

### Backend Developer

- Managed a legal data platform used by over 40 credit institutions, maintaining 99.9% uptime.
- Reduced infrastructure costs by 80% by migrating from a monolith to a multitenant architecture.
- Developed and deployed a 5 microservices system using Spring Boot and OpenShift.
- Processed a data stream of more than 100 million records using MongoDB, PostgreSQL, ActiveMQ and ETL scripts.
- Achieved a 75% code coverage using TDD via JUnit for new feature development.

SPRING BOOT · OPENSIFT · MONGODB · POSTGRESQL · ACTIVEMQ

## SKILLS

TECHNICAL Python, Java, Solidity, Go, Node.js, Flutter, C++, Android, Docker, Linux, Design, Testing

SOFT Teamwork, Communication, Fast, Passion

## HOBBY

Calisthenics, Chess, Manga, Movies and TV Series

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🔄 GitHub

in LinkedIn

## EDUCATION

2023-2025 **Computer Science**  
MASTER'S DEGREE  
University of Bologna  
GPA: 4.0

2020-2023 **Computer Science**  
BACHELOR'S DEGREE  
University of Bologna

## SIDE PROJECTS

2023 **SocialTrustr**

- Created a blockchain-based social media framework, to provide traceability and validity of shared content.
- Designed an incentive-based voting system using digital tokens to reduce the spread of fake news.

SOLIDITY · BLOCKCHAIN · CONSENSUS ALGORITHMS

2023 **Livechat**

- Built a full-stack social app with real-time chat and location sharing capabilities among friends, achieving the highest grade (30L) in the 'Mobile Applications' course.

PYTHON · FLUTTER · WEBSOCKET · MONGODB · JWT

2022 **CrazyPlayer**

- Implemented an AI player that can play optimally in all possible instances of the M,N,K-game.
- Ranked first in a student tournament with over 50 participants.

JAVA · GAME TREE · ALGORITHMS · DATA STRUCTURE

## ACHIEVEMENTS

2019 **Italian Olympiad in Informatics**  
Competitive programming in C++

MAY 2019 **National IT Competition**  
Classified 5th in the entire country  
UML design and Java development

OCT 2018 **Erasmus+, Vilnius Lithuania**  
Working full-time in a startup