# 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.
- Migrated customer app to an SSR architecture and designed a Redis-backed cache for on-demand translation of labels.
- Spearheaded the ZONIA prototype for the EUfunded TrustChain project: developed a zero-trust multi-chain oracle system for IoT devices.

NESTJS · REDIS · SOLIDITY · ANGULAR · WOT

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 · OPENSHIFT · MONGODB · POST-GRESQL · ACTIVEMQ

#### SKILLS

TECHNICAL Python, Java, Solidity, Go,

Node.js, Flutter, C++, Android, Docker, Linux, Design, Testing

SOFT Teamwork, Communication,

Adaptability, Time Management,

Leadership

#### HOBBY

🖀 | Bologna, Italy

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**G**itHub

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 realtime 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