



# Alessio Falai

SOFTWARE DEVELOPER · ARTIFICIAL INTELLIGENCE STUDENT

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## Education 📖



### Alma Mater Studiorum - University of Bologna

M.S. IN ARTIFICIAL INTELLIGENCE · COMPUTER ENGINEERING

Bologna, Italy

October 2019 - Now

Grade -  
Thesis -

Python Prolog Scala Spark MiniZinc/Z3



### Florentina Studiorum Universitas - University of Florence

B.S. IN COMPUTER SCIENCE

Florence, Italy

October 2016 - October 2019

Grade 110 cum laude / 110  
Thesis Refinement of a Python library to perform OCR on identity documents

C Java MySQL Python



### I.T.S. Tullio Buzzi

HIGH-SCHOOL DIPLOMA IN INFORMATION AND COMMUNICATIONS TECHNOLOGY

Prato, Italy

September 2011 - July 2016

Grade 100 / 100  
Thesis Implementation of a C++ holographic experience

C C++ Java PHP MySQL Javascript HTML CSS

## Skills 👤

### TECHNICAL

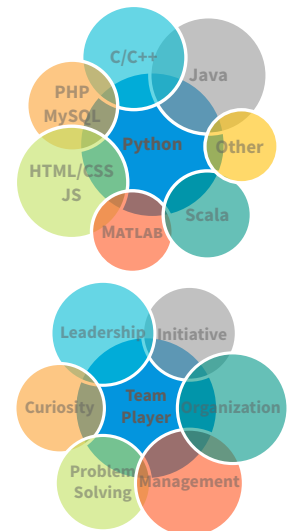
**Programming** Python, Java, C, C++, Scala, MATLAB, Prolog  
**Libraries** Qt, OpenCV, Django, SciPy (NumPy, Pandas, ...), SciKits (scikit-learn, scikit-image, ...), Spark  
**Tools** Bash, Git, Docker, LaTeX, Jupyter  
**Web** HTML, CSS, Javascript, jQuery, PHP, REST API, MySQL, Wordpress

### INTERPERSONAL

**Languages** Italian, English  
**Capabilities** Project planning, Project management, Teamwork, Leadership, Organization, Initiative, Curiosity, Problem solving  
**Hobbies** Photography, Travelling, Food culture, Cuisine

### PREFERENCES

**Likings** Computer vision, Data science, Declarative programming  
**Dislikings** Web development, .NET framework, C# programming language



## Experience 🧳

## Quid Informatica S.p.A.

Sesto Fiorentino, Florence, Italy

PYTHON DEVELOPER · PART TIME

August 2020 - September 2020



**Project** Refinement of a text classification model and implementation of specialized extraction algorithms to parse OCR results

**Achievements** Trained a text classification model to categorize financial documents, using fastText

Python OpenCV Flask Tornado Gunicorn SpaCy fastText Azure Cognitive

## Quid Informatica S.p.A.

Sesto Fiorentino, Florence, Italy

PYTHON DEVELOPER · FREELANCE

February 2020 - June 2020



**Project** Development of 3 production-grade Python micro-services working in banking environments, to classify and extract text from identity documents

**Achievements** Implemented NER (Named Entity Recognition) techniques to parse raw OCR results, using spaCy

Python OpenCV Flask Gunicorn SpaCy Tesseract Google Vision ABBYY OCR.Space Azure Cognitive

## QI-Lab S.r.l.

Sesto Fiorentino, Florence, Italy

PYTHON DEVELOPER · FREELANCE

June 2020 - October 2019



**Project** Identity documents OCR library development

**Achievements** Implemented edge detection and text detection techniques to improve OCR results, using OpenCV

Python OpenCV Django Tesseract Google Vision ABBYY

## QI-Lab S.r.l.

Sesto Fiorentino, Florence, Italy

PYTHON DEVELOPER · INTERNSHIP

March 2019 - May 2019



**Project** Identity documents OCR library development

**Achievements** Implemented a custom image binarization algorithm, using OpenCV

Python OpenCV Django Tesseract

## Continental S.p.A.

Fauglia, Pisa, Italy

PYTHON DEVELOPER · FREELANCE

January 2019 - September 2019



**Project** Manually operated visual inspection digitalization

**Achievements** Development of a production-grade modular GUI working in industrial settings, using Qt

Python Qt

## EasyClaims.eu · Pro Claims S.r.l.

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PHP DEVELOPER · FREELANCE

January 2018 - March 2018



**Project** Insurance claims video verification interface

**Achievements** Gained some real-world knowledge about developing production software, using agile kanban techniques

PHP MySQL

## Develer S.r.l.

Campi Bisenzio, Florence, Italy

PYTHON DEVELOPER · INTERNSHIP

June 2015



**Project** Barcode handling GUI design and deployment

**Achievements** Gained insights about company environments and software design principles

Python Qt

## Websites

### tognonishop.com

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WEBSITE ADMINISTRATOR · FREELANCE

April 2020 - Now

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**Project** Fashion (shoes) e-commerce website

**Achievements** -

Wordpress Woocommerce

### studio54italy.it

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WEBSITE ADMINISTRATOR · FREELANCE

March 2020 - Now



**Project** Textile catalog website

**Achievements** -

Wordpress Woocommerce

**Project** Fashion (clothes) e-commerce website**Achievements** -

Wordpress Woocommerce

**walterquiet.com**

WEBSITE ADMINISTRATOR · FREELANCE

December 2018 - Now

**Project** Photography presentation website**Achievements** -

Wordpress Squarespace Woocommerce Leadpages Deadline Funnel Kajabi Kartra

## Challenges

### DOMESTIC

2015 **Finalist**, RoboCup Junior Italia

Malpensa Fiere, Italy

2015 **Finalist**, OIS - Olimpiadi di Informatica a Squadre (6th edition)

University of Bologna

## Projects

### OPEN SOURCE SELECTION

#### Tablut player

University of Bologna

AI BOARD GAME PLAYER

November 2019 - December 2019

- Project → AI player which uses iterative deepening beam *minimax* search with alpha-beta pruning and transposition tables
- Technologies → Python, Qt

#### Quoridor player

University of Florence

AI BOARD GAME PLAYER

June 2017 - September 2017

- Project → AI player which uses a modified version of the *jump point search* algorithm
- Technologies → Java

#### Holum

I.T.S. Tullio Buzzi

A TRUE HOLOGRAPHIC EXPERIENCE

December 2015 - July 2016

- Project → Multimedia hardware and GUI which aim at emulating an hologram
- Technologies → C++, SFML, sfMovie, OpenGL, assimp
- Tools → Myo Armband, Leap Motion

## Other info

### ITALIAN JOB MARKET

Si autorizza il trattamento delle informazioni contenute nel curriculum in conformità alle disposizioni previste dal d.lgs. 196/2003. Si dichiara altresì di essere consapevole che, in caso di dichiarazioni non veritiere, si è passibili di sanzioni penali ai sensi del DPR 445/00 oltre alla revoca dei benefici eventualmente percepiti.