# John Bianchi

Professional CV

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Male

**2** 08/02/1995

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ORCID: 0009-0006-2582-1480

#### Education

National Ph.D. program in Cybersecurity (Ph.D.-CySec)

01 Dec. 2023 - Ongoing Lucca, Italy

- Tools and Techniques for Scalable and Usable Cyber Ranges
- Contact person: Gabriele Costa

IMT School for Advanced Studies Lucca

- Curriculum: Software, System and Infrastructure Security
- MSc Digital humanities Language technology 101/110 26 Sept. 2019 03 Feb. 2022 University of Pisa Pisa, Italy
  - LM-43 2nd level degree in Computer Science for humanities Department of Philology, Literature and Linguistics. Training course in Language technology
  - Dissertation/thesis title: Automatic recognition of scientific names of species in texts for FAO document indexing. Thesis supervisor: Dr. Gianpaolo Coro
- BSc Digital humanities 98/110

University of Pisa

04 Sept. 2014 – 09 May 2019 Pisa, Italy

- L-10 1st level degree in Humanities Department of Philology, Literature and Linguistics
- Dissertation/thesis title: Design and development of a low-cost platform for the acquisition and analysis of tourism related data. **Thesis supervisor**: Dr. Andrea Marchetti
- Erasmus+ Programme

King's College London

24 Sept. 2020 – 11 Jan. 2021 London, United Kingdom

Italian High School Diploma — 67/100

Liceo Artistico "A. Passaglia"

Sep. 2009 – July 2014 Lucca, Italy

# Work Experience

# Research Collaborator at

IMT School for Advanced Studies Lucca

01 Jan. 2023 - 01 Dec. 2023

Lucca

- Member of the TOFFEe project (TOols for Fighting FakEs): my research activities focus on detecting the trustworthy level of a news article, by exploiting deep learning techniques and explainable AI. In particular, I am adopting

- \* data scraping software such as Selenium with Chromedriver to extract textual content from more than 40 news websites using a pipenv-managed development environment.
- \* Google Colab and Jupyter Notebooks for data mining, using tools such as Scikit-Learn, Pandas, Numpy, Matplotlib, Seaborn, PyTorch and TensorFlow.
- \* Bert-derived transformers for text classification and study of these techniques through explainability techniques (LIME, EXBERT, SHAP.)

# $\begin{array}{c} \textbf{Junior staff in consulting} \\ \textit{Deloitte & Touche SpA} \end{array}$

21 March. 2022 - 21 Dec 2022

Milano, Italy

- Full-Stack e-commerce website development using Salesforce commerce cloud.
- Development of an e-commerce platform for *Unicoop Firenze's* online grocery shopping.

#### Trainee student

01 Mar. 2021 - 01 Jun. 2021

Institute of Information Science and Technologies - ISTI CNR

Pisa, Italy

- NLP software development for the Named Entity Recognition task required by the ASFA division of Food and Agriculture Organization of the United Nations (FAO).

# Web Developer

01 Jun. 2020 - 01 Jan. 2021

Wally Communication

Lucca, Italy

- Website development using Wordpress with Elementor page builder.

# ICT help desk agent

01 Jun. 2020 - 01 Oct. 2020

Accademia di Belle Arti di Carrara

Massa-Carrara, Italy

- Technical support for examination and graduation session.

# Digital audio transcriber

15 Feb. 2019 - 15 Jul. 2019

Sigma Technologies S.L.U.

Madrid, Spain - Remote work

- Transciption of Google voice action digital audio.

#### Trainee student

01 Feb. 2019 - 01 Mar. 2019

Institute of Informatics and Telematics - IIT CNR

Pisa, Italy

- Development of Web scraping software for the automated acquisition of data regarding tourism flow in four different areas of Tuscany.

# Bartender

15 Jun. 2016 - 30 Dec. 2019

Bar Ponte Del Giglio

Lucca, Italy

- - Dealing with customers, handling phone calls and payments...

#### **Projects**

Reviewer

01 Jan. 2023 - Ongoing

IMT School for Advanced Studies Lucca

Lucca

- SIGIR'23 (Special Interest Group on Information Retrieval), 2023
- ITASEC 2023 (Italian Conference on Cybersecurity), 2023
- ESORICS 2023 (European Symposium on Research in Computer Security), 2023
- EAI Internation 2023 14th EAI International Conference on Intelligent Technologies for Interactive Entertainment

# Website Development for Lucca National Museums

01 Jan. 2023 - Ongoing

- IMT School for Advanced Studies Lucca
  - Coordinators: Prof. Gabriele Costa Prof. Emanuele Pellegrini
  - Adoption of web development technologies, including HTML, CSS, and JavaScript, to create an interactive and visually appealing website.
  - Implementation of dedicated APIs using Node.js MySQL and Docker.

# Automatic recognition of scientific names of species in texts for FAO document indexing \*Coordinator: Prof. Gianpaolo Coro

- Project carried out as dissertation for my master's degree.
- Timeline for software development: 01 Mar. 2021 01 Jun. 2021.
- Timeline for thesis text realization: 01 Aug. 2021 01 Dec. 2021
- Named entity recognition for recognizing scientific names of species in texts in a computationally efficient manner and integrated as a web service to ASFA. for automatic document indexing.
- Resources:
  - \* Web service page nlp.d4science.org/asfa/
  - \* GitHub repository github.com/cybprojects65/SpeciesNamesNER
  - \* Documentation johnbianchi.it/documents/Taxa\_project\_Documentation.pdf

# NLP of Tweets about disasters

Coordinator: Dr. Andrea Esuli

- This project has been conducted for the 'Text Analytics' course of my university studies.
- Development of two different models to classify the tweets: the first one, based on a traditional approach, manually implements feature engineering, the second one relies on the Bert language model, through Simple Transformers library.
- The project was developed for a competition on Kaggle.
- Timeline: Jun. 2021 Jul. 2021
- Resources:
  - $\ast$  GitHub repository github.com/john-lenci-bianchi/Natural-Language-Processing-with-Disaster-Tweets/blob/main/Disaster\_tweets.ipynb
  - \* Kaggle competition kaggle.com/c/nlp-getting-started

# Data Mining Project, Data analysis on Carvana data

Coordinator: Prof. Anna Monreale, Prof. Dino Pedreschi

- This project has been conducted for the 'Data mining: fundamentals' course of my university studies.
- Application of statistis data mining to analyze data concerning the transportation sector.
- Timeline: 15 Sept. 2019 01 Dec. 2019

- Resources:
  - \* Project documentation johnbianchi.it/documents/Data\_Mining\_I.pdf

# Project for the course Computational Linguistics II

- Coordinator: Prof. Simonetta Montemagni, Dr. Giulia Venturi
  - Developer activity for the 'Computational Linguistics II' course of my university studies.
  - Collection of a test corpus to evaluate the accuracy of a chain of automatic linguistic annotators.
  - Timeline: 01 Feb. 2020 01 Jun. 2020
  - Resources:
    - \* Project documentation johnbianchi.it/documents/Report\_Linguistica\_Computazionale\_II.pdf

# Project for the course 'Artificial Intelligence And Society'

- Coordinator: Dr. Ashwin Mathew
  - Final essay for the course "Artificial Intelligence And Society" at King's College London.
  - Timeline: 01 Sept. 2020 01 Jan. 2021
  - Resources:
    - \* Essay johnbianchi.it/documents/The\_price\_of\_automatic\_communication.pdf
- Design and development of a low-cost platform for the acquisition and analysis of tourism data

  \*\*Coordinator: Dr. Andrea Marchetti\*
  - This project has been carried out as the dissertation for my bachelor's degree.
  - Timeline for software development: Sept. 2018 Feb. 2019.
  - Timeline for thesis text realization: 01 Feb. 2019 01 Apr. 2019
  - Web scraping of TripAdvisor using a Raspberry Pi 3 Model B+ and development of a dedicated website for the visualization of the extracted data.
  - Resources:
    - \* Documentation johnbianchi.it/documents/Documentation.pdf
    - \* Web page johnbianchi.it/tripadvisor

# Participation to Workshops

Social Networks Dynamics and Impact on Financial Markets

26-27 Jan. 2023

Organizers: IMT School for Advanced Studies Lucca, University of Rome Tor Vergata

# Foreign language skills

# English IELTS Academic

British Council.

- Europass level B2.

01 Dec. 2018

I authorize the processing of personal data pursuant to Legislative Decree 196/2003. John Biernelli