Lorenzo Bisi

Curriculum Vitae

As Engineering student from Politecnico di Milano, I followed an AI path that made me explore the many aspects of this discipline. My interests range from Machine Learning, NLP, Multiagent Systems, Networks Science to Consciousness and Philosophy of Mind.
As engineer my goal is to model and develop intelligent solutions to new and challenging problems.

Education

2014–2017 **MS - Computer Science and Engineering**, *Politecnico di Milano*, Milano(IT), *Master Degree, 110/110 e lode*.

2011–2014 **BS - Computer Engineering**, *Università degli Studi di Parma*, Parma(IT), *Bachelor Degree, 110/110 e lode*.

Master thesis

title *Regret Minimization Algorithms for the Follower's Behavior Identification in Leadership Games*

supervisors Prof. Marcello Restelli, Ing. Francesco Trovò, Ing. Giuseppe De Nittis

description We studied for the first time a leadership game in which one agent, acting as *leader*, faces another agent, acting as *follower*, whose behaviour is not known a priori by the leader, being one among a set of possible behavioural profiles. This is the case for **Security Games**, when we do not know the *rationality level* of our adversary. We propose two novel algorithms which employ **Online Learning** techniques to solve the problem and we also prove a theoretical bound which guarantees a constant regret for one of them.

Bachelor thesis

title *Design and implementation of a smart camera based on IoT technologies for efficient surveillance systems*

supervisors Prof. Simone Cirani, Prof. Marco Picone

description Design of an **IoT** smart camera that could detect moving objects with **Computer Vision** techniques, communicating in a network with **CoAP**, a recently standardized communication protocol for devices with constrained resources.

Working Experience

2014–2015	**Developer**, *Kode*, Lodi(IT).
	Reorganized code and ported legacy code to Java.

Projects

Course Projects

2016   **BIP Competition**, *Data Mining Course @Polimi*, 1st classified Team.

An internal data mining competition with a dataset offered by BIP, an italian consulting company. Our goal was to predict the sales of 2 kinds of product in different areas. After a detailed data analysis we came up with an hybrid algorithm which combined XGBoost and an ARMA model, taking advantage of the discovered features and the periodicity of the studied system.

2015   **RecSys Internal Competition** , *Recommender Systems Course @Polimi*.

An internal recommender systems competition hosted on kaggle. The objective was to predict which movies the users saw given a training set of seen movies and movie features. We experimented many state-of-the-art algorithms and finally we reach the 4th position with a custom hybrid algorithm.

2014   **Meteocal: a social calendar webapp**, *Software Engineering Course @Polimi*.

Design and development of a calendar webapp which enables users to create events, invite friends and monitor the weather forecasts of the outdoors events. The project, fully documented in all its phases, was realized with J2EE, with a Glassfish server and making use of Primefaces library for the UI.

2013   **GotIt: Android Game**, *Mobile Development Course @UniPR*.

An Android gaming app that involve users in a social game. The users have to pass each other the "It" (with a simple tap) as fast as they can to avoid losing points. The application was written in Java using ZeroMQ library at server side to handle queues.

Languages

Italian	Mother Language	
English	B2	*TOEFL Score: 100/120*

Skills

Programming languages

Expert	Python
Proficient	Java, SQL
Prior Experience	Matlab, C, C++, C#, Lisp, Haskell, Prolog

Attended Courses

A brief list of the most significative courses of my MS:

Artificial Intelligence, Machine Learning, Data Mining, Soft Computing, Game Theory, Recommender Systems, Autonomous Agents and Multiagents Systems, Dynamic Systems, Complexity in Networks and Systems, Internet Economics, Knowledge Engineering, Genetic Algorithms