Matteo Silvestro

Education

2007–2012	**High school diploma**, *I.I.S.S "Gianfrancesco Cigna"*, Mondovì, *100*.
	Basic knowledge of Mathematics, Physics, Biology, Chemistry, Geography, History, Italian and English Literature, Information Technology.
2012–2015	**Bachelor's degree in Mathematics**, *Università degli Studi*, Torino, *110L*.
	Courses of Algebra, Probability and Statistics, Analysis, Geometry with a weighted average of *28.375*.
2015–2017	**Master's degree in Stochastics and Data Science**, *Università degli Studi*, Torino, *110L*.
	Modern education in probabilistic, statistical and computational methods with a weighted average of *29.156*.
29/08/2016–02/09/2016	**Bayes, Big Data, and The Internet**, *Applied Bayesian Statistics School*, Como.
	Summer school that aims to present state-of-the-art Bayesian applications. The lecturer was Dr. Steve Scott, Director of Statistics Research Google, USA.
12/01/2017–27/07/2017	**Android Basics Nanodegree**, *by Google*, Udacity.
	Online course, co-created by Google, to teach the basics of Java programming for Android. The syllabus is composed of different parts:

1. *User Interface*, to learn to transform hand-drawn app designs into layout using XML (*Single Screen App*).
2. *User Input*, to learn the basic of Java and add interactivity to the app (*Score Keeper App*, *Quiz App*).
3. *Multi-Screen Apps*, to learn how to show multiple screens and how Android handles touch events (*Musical Structure*, *Report Card Class*, *Tour Guide App*).
4. *Networking*, to learn how to use Web APIs and the basics of networking in Android, including HTTP networking, JSON parsing, and threads (*Book Listing App*, *News App*).
5. *Data Storage*, to learn how to work with SQL databases and accomplish data persistence (*Habit Tracker*, *Inventory App*).

Each part requires one or more project (for a total of 10, shown in parentheses above) to be submitted and reviewed. Every app must be compliant with the project rubric instructions. The certificate of completion can be found as an attachment at the bottom.

Bachelor thesis

title	*MCTS and videogames: an application for Pokémon Contest Spectacular*
supervisor	Roberta Sirovich

description	MCTS algorithm has been used with success for games like Go, simulating a number of games randomly and creating a game tree. It can be enhanced further with UCT, a move selection strategy making a trade-off between exploration of new strategies and exploitation of better ones. In this thesis, the working principle of the algorithm is explained. Moreover, it is discussed how it may be also applied successfully to videogames and it is shown an applied use. The game chosen as application is Pokémon Contest Spectacular, in which four players challenge themselves in a five-turn show.

Master's Degree thesis

title	*Computer-Assisted Evaluation of Story-Driven Interactive Storytelling Systems*
supervisor	Roberto Esposito
co-supervisor	Vincenzo Lombardo
description	We propose, expanding on previous attempts, a general methodology to evaluate story-driven interactive storytelling systems via clustering, tension curve extraction and user surveys. This procedure outputs a set of clusters, each with its own specific tension curve shape and average quality score. The story designer may inspect the resulting clustering and iterate over his/her storytelling system using the new knowledge acquired. This may also lead to an association between tension curves and quality of a story. We apply this methodology to our story-driven interactive storytelling system. Our results indicate that clusters, even if not well-formed, display different quality scores and that some tension curves seem to be associated with better stories.

Experience

23/03/2020– today	**Python Backend Developer**, *Oval Money*, Turin. ○ Development activites on the Python backend that powers the *Oval* app. Detailed activities: 　– Version control using *git* and *Gitlab* with Continuous Integration tools; 　– Implementation of new features and bugfixs on Python backend (*Pyramid*) following Test Driven Development (*pytest*); 　– PosgreSQL and MongoDB databases management via *SQLAlchemy* and *Alembic*.
17/02/2020– 10/03/2020	**Big Data Developer**, *MC Engineering*, Turin. ○ For *Reply Machine Learning*: improvements on a bank chatbot. Detailed activities: 　– Google Dialogflow and IBM Watson Assistant API integrations; 　– New features for Python backend (*Flask*); 　– Javascript frontend modifications (*Vue*).

05/03/2018– 14/02/2020	**IT consultant**, *Consoft Sistemi*, Turin.
	○ *System Administrator* for Intesa Sanpaolo: management of Qlik Sense Enterprise and NPrinting servers. Detailed activities: – Management of Qlik Sense Enterprise servers via QMC; – Management of Qlik NPrinting servers via web console; – Automating tasks using PowerShell. – Creation of a set of tools to aid in the management of Qlik Sense and NPrinting servers, named Qlik Butler.
	○ *Application Developer Junior* for Intesa Sanpaolo: management of Oracle database data warehouses and upgrade of a Java-based custom web client for reports. Detailed activities: – Management of Oracle databases via Toad; – Job schedulings via TWS; – Upgrade and maintenance of a Java-based custom web client via Eclipse.
22/01/2018– 02/03/2018	**IT consultant**, *System Evolution*, Turin. SAS Enterprise Guide job tests and scheduling via TWS.

Languages

Italian	Native speaker	
Engish	B2	*Preliminary English Test certification*

Computer skills

scripting	Good knowledge of *Python* (compliant with *PEP 8* and *PEP 257*) and *PowerShell*, basic knowledge of *Lua*.
compiled	Basic knowledge of *Visual Basic*, *C++* and *Java*.
videogames	I developed little games in *LÖVE* (*Lua* based) and *pygame* (*Python* based), I know how to use *GameMaker Studio 2* and Godot Engine.
web	Intermediate knowledge of *HTML*, *CSS*, *Javascript* and *PHP*, basic knowledge of *Vue*.
databases	Intermediate knowledge of *MySQL*, *sqlite* and *Postgres* database management, and *SQL* commands.
statistics	Intermediate knowledge of *R*, *Excel* and *Qlik Sense*, basic knowledge of *SAS* (certification of *SAS Programming 1: Essentials*).
typography	Good knowledge of LATEX.
music	I know how to make music scores with *lilypond*.
mobile OS	Intermediate knowledge of *Android* OS and of *Java* libraries for Android application programming (certification of completion of Udacity course *Android Basics Nanodegree* by Google).
desktop OS	Other than *Windows*, I have a good understanding of *GNU/Linux* and its terminal console.
IDE	Intermediate knowledge of *Visual Studio Code* (for most of my programming needs), *PyCharm*, *Android Studio* (for Android application development) and *TeXstudio* (for LATEX).

Interests

videogames I'm fond of videogames, mainly indie ones. I think it is a really intriguing form of art, spacing from music and drawing to mathematics, and I'm looking into developing (or taking part in developing) a game. Among my favorites are *Monkey Island*, *Portal 2* and *Journey*.

artificial intelligence Machine making decisions and its underlying process is something I'm really interested in. My main interest is in AI applied to games and in stochastic AI algorithms (like MCTS).

music I really love music, mainly electronic and orchestral one. I play the piano at an intermediate level.

July 26, 2017

UDACITY

Matteo Silvestro

Has successfully completed the

Android Basics Nanodegree by Google

NANODEGREE PROGRAM

Sebastian Thrun
Founder, Udacity

Co-Created with

Google