Gianluca Guarro

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Experience

Sonos **June 2022 – Present**
Data Scientist *Remote*

- Developed and deployed an end-to-end forecasting pipeline from data ingestion to model training to forecast generation with AWS.
- Transformed business-critical telemetry data into a more functional and efficient representation that analysts across the organization could use.
- Published a Tableau dashboard providing insights into customer LTV based on telemetry data to aid business strategy.
- Rewrote complex SQL queries boosting their execution speed by up to 20x.

BIP **Sep 2020 – Feb 2021**
Data Science Intern *Milan, Italy*

- Performed a variety of web-scraping, data-cleansing, and data-exploration tasks to generate large datasets using Python, SQL, and NoSQL to be used in downstream machine learning projects.
- Researched, implemented, and assessed the viability of various image recognition algorithms.

ASCA, Inc **July 2016 – Sep 2018**
Software Analyst *Redondo Beach, California*

- Developed an application for NASA Kennedy Space Center that allows for the intuitive development and utilization of probabilistic risk models (event tree / fault tree PRA models) used for the launch approval of nuclear powered NASA planetary missions.
- Revamped the company's bayesian belief network (BBN) analysis software by increasing functionality and furnishing it with a modern graphical user interface.
- Performed a variety of tests and debugging assignments on the company's multi-valued logic analysis and discrete simulation software to improve functionality and verify results.

Education

Polytechnic University of Milan **2018 – 2021**
Master of Science in Computer Science and Engineering (105/110) *Milan, Italy*

California State University Long Beach **2017 – 2018**
Post-Bachelor in Computer Science (4.0 GPA) *Long Beach, California*

University of California Santa Barbara **2012 – 2016**
Bachelor of Science in Physics (3.4 GPA) *Santa Barbara, California*

Projects

Movie Recommender System | *Python, Cython, Scikit-Learn, SVD, kNN* **Feb 2022 – June 2022**

- Used Cython to efficiently work with Big Data of 10,000,000+ data points.
- Boosted performance of recommender by 15% by scraping and cleaning additional relevant information from IMDB.
- Exceeded performance of baseline recommender system by over 55%.
- Compiled, organized, and analyzed several experiments including analyses of Non-Personalized, Heuristic, Matrix Factorization, and Graph-Based techniques suited for building recommender systems.

Book Success Predictor (MS Thesis) | *Python, Pytorch, Deep Learning, SVM, logistic regression* **Feb 2021 – Oct 2021**

- Developed a powerful NLP model capable of predicting successful novels with a F1 score of 73.6% on a benchmark dataset.
- Performed state of the art research and implemented several neural architectures to study their efficacy for the problem at hand.
- Transfer-Learning, BERT, Transformers, RNNs, SVMs, Multi-modal Attention Networks

Technical Skills

Programming: Python, SQL, Visual Basic, JavaScript, HTML/CSS, C++
Tools and Technologies: Linux, Git, AWS, DBT, Tableau
Languages: English (Mother Tongue), Italian (Advanced), Spanish (Beginner)