

Antonio Pistillo

Expert Ph.D.

SUMMARY

An experienced software engineer with a solid background in AI and Machine Learning, specializing in data-driven solutions for large customer bases. Boasts advanced proficiency with languages and frameworks like Python, PySpark, TensorFlow, PyTorch, and expertise with Machine Learning Operations (MLOps) tools such as GitHub and Jenkins. The engineer has a proven track record of leading technical teams and managing stakeholder relationships in deploying end-to-end predictive models and ML solutions for key business applications in the telecommunication sector. The education credentials include a Ph.D. in Machine Learning Techniques and a M.Sc. in Automation Engineering from Politecnico di Milano, Italy, supplemented by a strong publication history that demonstrates ongoing contributions to the field.

TECHNICAL SKILLS

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| Main Technical Skills | Hugging Face Transformers, Data Analysis |
| AI & Machine Learning | AWS SageMaker, Keras, NumPy, OpenCV, ResNet, Scikit-learn, TensorFlow, Vertex AI, Xgboost |
| Python Libraries and Tools | Keras, NumPy, Pandas, Pillow, Robot Framework, Scikit-learn, TensorFlow |
| Data Analysis and Visualization Technologies | Data Analysis, Jupyter Notebook, Pandas |
| Databases & Management Systems / ORM | SQL |
| Amazon Web Services | AWS SageMaker |
| Google Cloud Platform | Google BigQuery |
| Third Party Tools / IDEs / SDK / Services | AutoCAD |
| Virtualization, Containers and Orchestration | Docker |
| Operating Systems | Linux, Windows |
| Soft Skills | Research Skills |
| QA, Test Automation, Security | Usability tests |
| Other Technical Skills | : Arduino, Churn |

SUMMARY

I help business stakeholders achieve key performances on million-level customer bases through data, generative Artificial Intelligence and Machine Learning solutions.

I focus on the production of actionable predictions and explanations used within example applications such as up-selling, cross-selling, churn saving, NPS and customer care.

I have a time-tested relationship with technology and teamwork: I take care of human factors as well as team-level technical and soft skills.

Key skills and tools:

- LLM : Hugging Face transformers, Llama, Mistral, Lora, Bert, DistilBert, Bart, Llama Guard.
- Deep Learning for customer lifetime value and journey optimization, buy and churn propensity. - Data Analysis, Regression, Classification and Clustering for predictive and explainable solutions.
- Management of technical and non-technical stakeholders.
- Formulation of business problems, e2e technical solutions and A/B testing with live campaigns. - Coding: SQL, PySpark, Python, Scikit-Learn, Tensorflow, Keras, Pythorch, Pandas, Numpy, ONNX, C++.
- MLOps: Github, Jenkins, Airflow, Cloud Build.

PROFESSIONAL EXPERIENCE

March 2019 – onwards

Artificial Intelligence and Big Data Scientist senior at Vodafone s.p.a. (Milan, Italy).

Activities:

- End-to-end development of business cases and productionization of ML solutions for prediction and

Explainability, focus on up/cross-selling, churn saving and A/B testing with live commercial campaigns.

- Ticket resolution for customer care solved with genAI through live call text summarization and

classification.

- Leading teams with mixed internal/external members with agile methodologies. - Development of ML solutions for customer NPS, journey and value optimization through finding best

commercial actions according to propensity to buy, churn and detractor/promotion.

- MLOps and data-science Life cycle phases with IT and stake-holders management.
- Keeping scientific knowledge up to date and propagated within Big Data department.

Tools:

- Coding: SQL, PySpark, Python, Jupyter Notebooks, Kedro, Scikit-Learn, Scikit-Image, Keras Tensorflow,

Pythorch, XGBoost, Numpy, Pandas, Shapley.



- LLM : Hugging Face transformers, Bert, Llama, Llama Guard. - MLOps: GitHub, Jenkins, Airflow, Google Vertex AI, Big Query, ONNX.

October 2017 – March 2019

Data Scientist at Accenture s.p.a. - ML Centre of Excellence (Milan, Italy).

Activities:

- AI/ML Learning based Projects and Proofs of Concept for Manufacturing, Telco and Banking sectors.
- Deep Learning and Machine Vision based Proofs of Concept and Projects for:
 - Energy (recognition of human operators wearing safety equipment)
 - Manufacturing (prediction of level of production non-conformities)
 - Banking (prediction of asset price using macro-economic data)
- Activities in all Data-Science Life cycle phases with team co-ordination, initial qualification, offer

quantification, technical negotiation project development and delivery.

Tools:

- Coding: Python, Jupyter Notebooks, Scikit-Learn, Scikit-Image, OpenCV, Pillow, Keras Tensorflow,

XGBoost, Numpy, Pandas, Resnet, Vgg.

- Cloud: Amazon Sagemaker, Microsoft Azure Machine Learning.

- Web-service deployment: Microsoft Azure Machine Learning, Docker containers.

November 2016 – September 2017

Data Scientist for Industry 4.0 at Techedge group s.p.a. (Milan, Italy)

November 2015 – July 2016

R&D Machine Learning for intelligent prosthetics at Roadrunnerfoot Engineering s.r.l. (Milan, Italy).

October 2013 – November 2015

R&D Machine Learning for intelligent automation Laboratorio Elettrofisico Engineering s.r.l. (Milan, Italy).

EDUCATION

- **Ph.D. in Machine Learning Techniques for Human-Robot Collaboration**
- Joint use of Imitation Learning and Control techniques to provide robots with suitable capabilities needed to learn from and cooperate with human users in both industrial and domestic scenarios.
- 2010 January – 2013 April
- **M.Sc. in Automation Engineering**
- Hidden Markov Models for Artificial Intelligence in Human-Robot Interaction.
- 2006 – 2009
- **Erasmus student at Brunel University**
- 2006 – 2007



- **B.Sc. in Automation Engineering**
- Modelling and non-linear control of engines based on Feedback Linearization.
- 2003 – 2006

