

Claudio S. De Mutiis

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Headline

Senior Data Scientist with experience in stakeholder management, recruitment and line management. Proficient in supervised, unsupervised and reinforcement learning, including deep learning and LLMs. Expert on several different applications of Machine Learning and AI including NLP and Computer Vision. Extensive industry experience including Retail/E-Commerce, Media, High-Tech, Startups, Insurance and Healthcare.

EDUCATION

Udacity

- Self-Driving Car Engineer Nanodegree (2 out of 3 terms completed)

King's College London, London UK

- MSc in Robotics with *Distinction* (over 70%), December 2015
- Final Cumulative Grade: **83/100**

Boston University College of Arts & Sciences, Boston MA

- Bachelor of Arts in Physics, May 2013
- Bachelor of Arts in Economics, May 2013
- Minor in Mathematics, May 2013
- Undergraduate Cumulative GPA: **3.95/4.00**
- *Summa Cum Laude* (top 5% of the class)

TECH SKILLS

· Python, SQL, Pandas, Scikit-learn, TensorFlow, Keras, PyTorch, AWS, GCP, Snowflake, Kubeflow, Tableau, Jupyter Notebook, LlamaIndex, ChromaDB, OpenAI, Evidence, Streamlit, Mode Analytics, Ansible, Jenkins, Chronos, Mesos, MATLAB, Java, C++, C, Fortran, HTML, CSS, PHP and LaTeX.

RECENT WORK/RESEARCH EXPERIENCE

toptal.com **LLMs, Python, SQL, Pandas, Scikit-learn, Keras, AWS, GCP, LlamaIndex, ChromaDB, Streamlit**
Data Science Freelancer January 2021 - Present (Fully Remote)

- Toptal is an exclusive network of the top freelance software developers, designers, finance experts, product managers, and project managers in the world. Top companies hire Toptal freelancers for their most important projects.
- Of the thousands of applications Toptal sees each month, typically fewer than 3% are accepted.

Wilmington PLC **Python, SQL, Scikit-learn, Keras, Snowflake, Pandas, Jupyter Notebook**
Lead Data Scientist February 2023 - August 2023

- Research and develop forecasting models for the gross written premiums of several insurance lines across the globe (Axco Insurance)
- Research and develop predictive models for patient numbers for different therapy areas and drugs across the UK (Wilmington Healthcare)
- Work on a proof of concept involving the use of large language models (LLMs) for grading and student feedback (Wilmington Training & Education)
- Work and Collaborate with the Innovation Committee at Wilmington

Winnow **Python, SQL, Pandas, Jupyter Notebook, Mode Analytics**
Lead Data Scientist May 2022 - January 2023

- Manage and mentor a team of Data Scientists
- Support the development of Computer Vision Models
- Lead strategic projects/insights
- Improve and automate the workflow and processes
- Improve coding practices and review existing projects' code
- Manage the Agile way of working/Sprint Planning within the Data Science team
- Manage annotation and data quality

Sky **Python, SQL, Pandas, Scikit-learn, Keras, GCP**
Senior Data Scientist May 2021 - January 2022

- Being responsible for and develop customer churn models for the business
- Working on a real-time machine learning proof of concept involving anomaly detection on hub telemetry data
- Recruiting/interviewing Data Scientist candidates
- Line management and mentoring responsibilities

notonthehighstreet.com **Python, SQL, Pandas, TensorFlow, Keras**
Senior Data Scientist April 2018 - July 2019 (Richmond, United Kingdom)
Data Scientist August 2017 - April 2018 (Richmond, United Kingdom)

- **6-month Management Program** (January 2019 to June 2019)

- Manage one Data Scientist (as Senior Data Scientist)
- Plan and write quarterly OKR proposals
- Stakeholder management
- Improve Data Science workflow and coding practices
- Redesign Data Science recruitment from scratch
- Introduce **Deep Learning** into the work carried out by the Data Science team
- Improve gifts' discoverability and search using **NLP** techniques
- Deep Learning collaborative filtering leading to product and customer embeddings as well as insights on customer behaviours
- Build new ways of evaluating customers, partners and products so that we can create a better customer/partner experience and generate more profits
- Evaluate/increase the effectiveness of marketing/advertising campaigns
- Search engine optimization (SEO)
- Competitor analysis
- Analyse and link complex datasets so that they may be learned from
- Understand difficult business problems and prototype solutions using **Machine Learning** as well as other techniques
- Research and develop new algorithms to add value to the business
- Scientifically analyse and evaluate the effectiveness of different approaches to guide future development and track the value created by the team
- Communicate complex solutions in a clear, understandable way to non-experts
- Promote data and data science across the business

Mindi (Techstars London 2016)

Data Scientist

Python, SQL

September 2016 (London, United Kingdom)

- Wrote **python** scripts to infer servers/droplets' power usages from the datasets provided by DigitalOcean.

King's College London

AI Researcher

Python, C++

May 2016 - August 2016 (London, United Kingdom)

- Used **Artificial Intelligence Planning** to contribute to the design of the next generation of intelligent urban traffic controls.

Entrepreneur First

Cohort Member

March 2016 - April 2016 (London, United Kingdom)

- Learned several entrepreneurial skills such as ideation, team building, customer development, marketing, monetization, metrics, growth, investments and other startup-related issues.

LECTURES/TALKS

- *Self-Driving Cars & Behavioural Cloning* , 10/02/2018 , University of Oxford
- *Introduction to Self-Driving Cars* , 22/03/2018 , British Computer Society

SAMPLE PROJECTS

- Vehicle Detection and Tracking using a Histogram of Oriented Gradients (HOG), Spatial Binning of Colour, Histograms of Colour, a Linear Support Vector Machine and Sliding Windows **Python, OpenCV and Scikit-learn**
- Advanced Lanes Detection using Camera Calibration, Gradient/Colour Thresholding, a Bird's-Eye View Perspective Transform, a Sliding Window Search and Quadratic polynomial fits **Python and OpenCV**
- Behavioral Cloning: Teach a CNN (NVIDIA architecture) how to drive a car using the Udacity simulator **Python, Keras and Scikit-learn**
- Traffic Sign Classifier using a CNN **Python and TensorFlow**
- Predicting Boston Housing Prices with Decision Trees **Python and Scikit-learn**
- Building the first stage of a Biomedical Event Extractor using Logistic Regression **Python and Scikit-learn**
- AI Game using Minimax Search and Alpha-Beta Pruning: Sim **Java**

ACADEMIC AWARDS/RECOGNITIONS

- I was selected among hundreds of applicants from all over the world to be part of the Udacity team (18 talented engineers) in a self-driving cars competition that took place at Thunderhill West in Willows, CA on April 1-2, 2017
- The Professor Sir Richard Trainor PhD Scholarship (£15,000 p.a.)
- Departmental Scholarship (£6000) for postgraduate studies at Imperial College London (2015)
- Merit scholarship (half-tuition plus student services fee) for postgraduate studies at Boston University (2014)
- Alumni Student Award in Physics (top student in the 2013 Physics Class)

LANGUAGES

- English, Italian, Spanish (advanced beginner), Mandarin Chinese (beginner).

December 2024