Nicolas Trinephi

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SUMMARY

Master's graduate in computational science with industry experience in deep learning algorithms applied to time series prediction using cloud data flow tools such as Databricks. A team player and results driven individual, I am searching for my next opportunity in data science.

WORK EXPERIENCE

Graduate Teaching Assistant: Applied Computational Science **Sep 2020 - Present**
Imperial College London - London, UK (Remote)

- Drove student learning by holding office hours to walk through solutions, methods and key concepts.
- Maintained academic excellence through mentoring 10 students on work habits and mental health with 1 on 1 meetings.

Data Science Intern **June 2020 - Sep 2020**
Wintershall DEA - Hamburg, Germany

- Streamlined project management and decision making by performing statistical and bi-variate analysis of 13 years of raw industrial oil production data on **Azure Databricks** using **PySpark**.
- Enabled more effective data comprehension and analysis by designing interactive visualization of the data in **Python** using **Plotly** and **HVplot**.
- Successfully forecast production rates with 99% accuracy by applying various **LSTM** recursive neural networks using **Keras** and **MLflow**.

Primary Mentor **May 2019 - July 2019**
UCL Mechanical Engineering Workshop - London, UK

- Ensured the success of projects such as the Hydrone Hydrogen Racecar by coaching students on design and technical platforms such as CAD and ARDUINO systems.
- Oversaw the safety of the workshop by supervising working students, facilitating machine operations, and training students in processes such as 3D printing and laser cutting.

EDUCATION

Master's of Science: Applied Computational Science **Sep 2019 - Sep 2020**
Imperial College London - London, UK

- **Relevant Coursework**: PyTorch Classification and Transfer Learning, Optimisation
- Thesis title: *Deep Learning in Virtual Flow Metering*

Bachelor's of Engineering (Hons): Mechanical Engineering with Finance **Sep 2016 - July 2019**
University College London - London, UK

- Thesis title: *Particle Suspensions in Microfluidic Applications*

PROJECTS

Cifar10 *Py* **2020**
Imperial College London

Placed in the top 10 (score of 0.8) by applying **PyTorch** transfer learning with EfficientNet to classify over 10,000 images in a school Kaggle competition.

Conway's Game of Life in Parallel *C++* **2020**
Imperial College London

Implemented Game of Life in parallel using C++ MPI and object oriented programming wherein the number of cores is adaptive to user's input with a post processing script developed in Python.

SKILLS

Languages	**Native** English and French, conversational Spanish
Programming	Python, C++, MATLAB, Bash, LaTeX, HTML, MySQL, Dox BAT
Packages	Keras, PyTorch, PySpark, MLflow, sklearn, XGBoost, Plotly, HoloViews, C++ MPI
Technical	Databricks, Apache Spark, Microsoft Office, GitHub, CATIA V. 5, Origin Pro