



Dr. Sichen Li

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More Info on Personal website: <https://season0112.github.io/>

SUMMARY: Experienced Data Scientist residing in the Netherlands with extensive data research experience in performing machine and statistical models to extract actionable insights and provide solutions. Available ASAP.

SKILLS

Python, C++, MySQL, Git, Linux, Bash Shell, Azure Cloud, Cluster Server, Jira, Data visualization (Matplotlib, Seaborn, Tableau), **Machine Learning**(Scipy, Scikitlearn, Tensorflow), **Statistical Modeling, Data Cleaning and Processing**

EDUCATION

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| 2017.11–2023.07 | <ul style="list-style-type: none">• PhD in Astroparticle Physics
RWTH Aachen University, Aachen, Germany / European Organization for Nuclear Research, Geneva, Switzerland |
| 09/2015-07/2017 | <ul style="list-style-type: none">• Master of Science in Physics
Harbin Institute of Technology, Harbin, China |
| 09/2011-07/2015 | <ul style="list-style-type: none">• Bachelor of Science in Physics
Harbin Institute of Technology, Harbin, China |

WORK EXPERIENCE

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| 11/2017-07/2023 | <p>Data Scientist, RWTH Aachen University, Aachen, Germany</p> <ul style="list-style-type: none">• Cosmic Ray identification with Machine Learning<ul style="list-style-type: none">– Train the classifier with machine learning algorithms (BDTs, Neural Networks, etc) on Comic Monte Carlo simulation data– Hyperparameter Optimisation for performance with Grid/Random Search– Apply the classifier to real collected data from the International Space Station, showcase a significant 20% improvement in performance compared to previous classifiers• Analysis of Solar Wind impact on Cosmic Rays<ul style="list-style-type: none">– Data Cleaning and Reduction for over 200 billion cosmic events collected from the International Space Station– Apply advanced statistical models, including likelihood template fit techniques to extract antiproton signals from the collected data– Parameter estimation and confidence level to constrain Dark Matter models– Time series analysis of obtained cosmic antiprotons, identify distinct patterns in the propagation of cosmic antiprotons within the solar system for first time |
| 11/2017-10/2022 | <p>Scientific Researcher, European Organization for Nuclear Research, Geneva, Switzerland</p> <ul style="list-style-type: none">• Raw Cosmic Ray data calibration<ul style="list-style-type: none">– Investigate space operation during data taking to understanding Raw Data Quality– Execute precise calibration procedures on raw cosmic ray data to ensure accurate measurements– Achieve a remarkable reduction in measurement uncertainty of the physics response, reaching within 5%• Detector in Space Monitoring<ul style="list-style-type: none">– AMS-02 is a cosmic ray detector on the International Space Station that operates 24/7 to collect cosmic ray data. My task involves monitoring detectors running in space based on Grafana and performing daily high voltage adjustment to optimize detector performance. |
| 09/2016-07/2017 | <p>Teaching Assistant, Harbin Institute of Technology, Harbin, China</p> <ul style="list-style-type: none">– Support the supervisor in the lecture on 'Thermodynamics and Statistical Physics' by grading assignments and providing clarification during exercise sessions. |

LANGUAGE

English(Professional Proficiency), Chinese(Native Speaker), German(Beginner)