NAI-HWA CHEN, PhD. **Tel:+886-931-688030**
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Summary

- 3 years' experiences as a machine learning analyst/ researcher
- Develop DL-based platform with good knowledge of python, web application and deep learning algorithm. Specialize in geospatial imagery, Geographic Information System (GIS) and ML applications, specializing in image processing algorithm development.
- 9 years' experience in data science, scientific satellite imagery in multi-wavelengths. Specialize in the space environments and effects.
- Involved several international collaborations to conduct projects from research design to data analysis and interpretation.

Core competencies

Data mining: Understand various sources of data, experience mining astronomical structured data and transform to usable data

Big data Analytics: Use statistical tools (regression, morphology detection, physical modelling, time series) and predictive analytics.

Machine Learning/ Deep Learning: Use scikit-learn, Tensorflow

Visualization: good understanding of matplotlib, pandas

Programming tools: Python (2 yr), R (learning), IDL, MATLAB, FORTRAN

Strategic thinking: Able to ignite a new growth-focus idea to solve problems by involving different sources of data and different people in the decision-making process

Communication: Published 13 publications and gave oral presentations at various conferences

Employment

(Aug. 2018 – present)- National Center for High-performance Computing

- develops and integrates a variety of ML functions (through all ML lifecycle) of the DL-based platform

Solar Data Scientist

(**March 2016 – March 2018**) - Korea Astronomy and Space Science Institute, Korea

(**Oct. 2013 - Nov. 2015**) - MPI für Sonnensystemforschung, Germany

- Time series analysis on satellite and ground-based multi-wavelength data
- Develop new method to characterize the solar activities and the impact to heliosphere
- Use spectroscopy/imaging data to quantify local physic properties of plasma

Research assist. (Aug. 2005- Aug. 2006) – Institute of Earth Science, Academia

Sinica, Taiwan

-Use neutral networks (Matlab) to analyze earthquake propagations in Taipei basin

Education

- **IBM CognitiveClass, Deep Learning/ Data Science courses**
- **UDACITY Deep Learning courses**
- **Google analytics**
- **Ph. D. in Astronomy**, National Central University, Taiwan
- **M. S. in Space Sciences**, National Central University, Taiwan
- **B. S. in Atmospheric Physics**, National Central University, Taiwan