In Sung Jang

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https://github.com/hanlbomi

Summary of qualifications

Big data analysis with over 5 years of experience. Proven track record of international collaborations (US, Germany, and S. Korea) and rich publications in academia. Exceptional skills in massive data reduction (>1TB) using powerful clusters (>100 CPUs) in astronomy and knowledge of statistics that can be applied to solve industrial and financial challenges.

Technical Skills

● Advanced knowledge in programming (Python, LaTex, and IDL), exposure to SQL and Machine Learning (e.g., Scikit-Learn)
● Strong background in statistical modeling and independent research
● Experience in working with large unstructured data sets (e.g., astronomical survey data)

Professional Experience

University of Chicago, Astronomy, Sr. Postdoctoral Researcher   2020 - Present
● Applied statistical methods to find signals/patterns in the large source catalogs (N > 1million)
● Built pipelines to simultaneously process massive astronomical images (Python and IDL).
● Improved flux measuring algorithms; systematic errors are reduced to a 2% level (from 10%).
● Developed linear and non-linear regression routines to analyze time-series photometric data.

Leibniz-Institut für Astrophysik Potsdam (Germany), Postdoctoral researcher   2016 - 2020
● Used super-computers to derive photometric properties through non-linear 2D model fits.
● Applied statistical methods to quantify stellar flux above noisy background levels.
● Presented work at 5 international conferences, and collaborated on >10 scientific publications.

Education

● Ph.D. in Astronomy & Astrophysics, Seoul National Univ., South Korea   2016
● M.S. in Astronomy & Astrophysics, Seoul National Univ., South Korea   2011
● B.S. in Aerospace Engineering, Inha Univ., South Korea   2009

Summary of Publications in Academia

● 42 peer-reviewed journal articles with >**1900** citations (top 5% of Ph.D graduates in 2016)
● 11 first-author articles with **>300** citations

Accomplishments and Honors

● Hubble Space Telescope research grants (>200 orbits, $250K, incl. PI programs)   2014 - 2022
● ESO Very Large Telescope observing programs approved (total 40 hours, PI)   2019 - 2021
● Brain Korea 21 (BK21) Fellowship   2011- 2016

About me

I am an academy-oriented person with a strong interest in applying my knowledge to real-world problems.