

Akeem Justin Wells

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Address: Charlottesville, VA 22911

Interests

Code Development, Technology Development, High-Performance Scientific Computing, Data Mining, Machine Learning

Education

[University of Virginia](#)

M.S. Data Science

Charlottesville, Virginia

Graduated: 2022

[Florida Institute of Technology](#)

B.S. Interdisciplinary Sciences; Minor: Physics

Melbourne, Florida

Graduated: 2013

Work Experience

[National Radio Astronomy Observatory](#)

Software Engineer IV / Verification Test Lead

Charlottesville, Virginia

2025 – Present

Software Engineer III

2015 – 2025

Software Engineer II

November 2014 – 2015

- Remotely establish and manage a team of software testers to implement and systematically apply a Verification Test process to CASA's (*Common Astronomy Software Applications* package) development workflow and project timeline. Established guidelines; designs, develops and implements software applications for subsystems
- Work with CASA (*Common Astronomy Software Applications* package) developers, project scientists, data analysts and stakeholders to implement and maintain a comprehensive test program in addition to identifying and solving problems
- Participates in documentation, installation, testing, maintenance support and further development of software subsystems within established standards
- General Automated Test support for CASA including test development, implementation and analysis

[Avant](#)

Associate of Marketing Data Science (Part - Time)

Chicago, Illinois (Remote)

July 2022 – December 2023

- Market research analysis including designing, implementing, and analyzing surveys using data science principles; market segmentation; customer profiling; and accumulating ancillary third-party data using R and Python
- Develop sophisticated automated calculations and dynamic dashboards, providing real-time insights and enhancing data analysis capabilities. Additionally, robust incentive systems were successfully implemented to motivate performance and align with organizational goals. Collaborate closely with internal stakeholders to translate business needs into structured, actionable data assets.

- Deliver critical data for operational and product-facing workflows, ensuring reliability, timeliness, and accuracy.
 - Champion quality by building reusable frameworks that enforce governance, observability, and performance across the platform.
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Research Experience

Florida Institute of Technology

Melbourne, Florida

Astronomy Research Assistant

Winter 2009 – Fall 2014

- Statistical analyses of RR Lyrae light curves to identify Blazhko variability
- Performed time-series BVRI photometry of periodic variable stars using meter-class telescopes both remotely and in person
- Developed Python codes for the automated analysis of very large data sets implementing Fourier decompositions, Lomb-Scargle period analyses, and template fitting.
- Utilized Python, Pyraf, IRAF, and Astromatic software to develop an unsupervised automated differential photometry data analysis pipeline
- Utilized Python and R for Hierarchical classification of RR Lyrae

Brookhaven National Laboratory

Upton, New York

DOE Summer Research Fellow

Summer 2011

- Evaluated micron-scale surface flatness deviations of packaged, 4-side buttable CCD prototypes for the Large Synoptic Survey Telescope (LSST) at room temperature and at cryogenic temperature
- Developed Python-based machine control software for the development of an automated CCD package metrology system
- Developed data analysis and data visualization codes using Python and R to aid with the interpretation of CCD package metrology measurement

University of Washington

Seattle, Washington

Astronomy Research Experience Undergraduate

Summer 2010

- Developed Python code to simulate observations of RR Lyrae stars to ascertain the capabilities of the upcoming Large Synoptic Survey Telescope
 - Developed Python codes to calculate statistical properties of a set of 36 million RR Lyrae light curves
 - Work resulted in a publication in *The Astronomical Journal*
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Journal Publications

Team, N. C., Bean, B., Bhatnagar, S., Castro, S., Meyer, J. D., Emonts, B., Garcia, E., Garwood, R., Golap, K., Villalba, J. G., Harris, P., Hayashi, Y., Hoskins, J., Hsieh, M., Jagannathan, P., Kawasaki, W., Keimpema, A., Kettenis, M., Lopez, J., . . . Kern, J. (2022). CASA, the Common Astronomy Software applications for radio astronomy. *Publications of the Astronomical Society of the Pacific*, 134(1041), 114501. <https://doi.org/10.1088/1538-3873/ac9642>

Oluseyi, H.M.; Becker, A.C.; Culliton, C.; Furqan, M.; Hoadley, K.L.; Regencia, P.; Wells, A.J.; Ivezić, Z.; Jones, R.L.; Krughoff, K.S.; Sesar, B.; Jacoby, S.; Allison, I.J.. 2012. Simulated LSST survey of RR Lyrae stars throughout the Local Group. *AJ* **144**, pp. 9–17.

Oluseyi, H.M.; Becker, A.C.; Culliton, C.; Furqan, M.; Hoadley, K.L.; Regencia, P.; Wells, A.J.; Jones, L.; Krughoff, S.; Sesar, B.; Jacoby, S. 2011. LSST Observations of RR Lyrae Stars for Mapping the Galactic Halo. *Tracing the Ancestry of Galaxies (on the land of our ancestors)*, *IAU Proc.*, **277**, p. 300–304.

Oluseyi, H.M.; Becker, A.; Culliton, C.C.; Furqan, M.; Hoadley, K.L.; Regencia, P.; Wells, A.J.; Allison, I.J.; Jacoby, S.; Ivezić, Z.; Jones, L.; Krughoff, S.; Sesar, B. 2011. Measuring RR Lyrae Stars Throughout the Local Group with LSST. AAS Meeting #217, #252.13; *Bull Am. Astr. Soc.*, **43**, 2011.