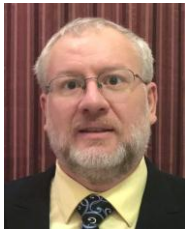


Using Big Data and HPC in Medical Research: An overview of Trends and Methods

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Biography



Jonathan (Jon) Raines was born in Wyoming, USA in 1970. He received a B.S. degree in Mathematics from Evangel University of Springfield, Missouri in 1992. He has many industry certifications starting with Novell CNE in 1994, Microsoft Windows Server (2003, 2008 R2, 2012 R2, Active Directory), Cisco CCENT in 2015, and is currently working on the RCSE for RedHat 7.0.

Jon serves as an Application Analyst at the highly acclaimed Houston Methodist Research Institute (<http://www.houstonmethodist.org/research/>), where he administrates over 500 customized medical research servers and workstations including a 330 core Linux HPC cluster for the hospital's research department, plus high touch management of research team IT needs.

In 1998, Jon worked at Prologix in Horsham, PA as a Wireless Network Engineer where he provided field installation troubleshooting for radio and protocol issues at the critical initial testing phases of the IEEE 802.11b (WIFI) standards. In 2006, this group of friends began working earnestly towards official IEEE recognition as an official branch of the organization by conducting frequent recruitment activities, university campus visits, and guest lectures. Jon served as the first IEEE Morocco Section Secretary as the new organization ventured into international conferences and student branches, until he returned back to the USA in 2008.

Through various consulting positions, Jon has advanced his career and become quite proficient in the field of High Performance Computing (HPC). He has built complex compute clusters as large as 200 nodes with 2000 cores, and been able to achieve up to 98.7% Linpack test efficiencies on small to medium Windows clusters.