Thomas Gadfort

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Data Science & Quantitative Analysis Professional

Driven, technically-savvy professional with a decade of accomplishments in scientific research in experimental particle physics seeking to bring talents to the field of data science and quantitative analysis. Experience collaborating with and leading diverse, international teams on the analysis of large, complex data for the U.S. Department of Energy. Exceptional communicator with experience presenting results and drafting content for a variety of collaboration materials and publications. Ph.D. with a history of academic excellence.

Areas of Strength

Data Analysis • Data Modeling • Statistical Analysis • Research • Big Data • Quantitative Analysis • Data Mining
Project Management • Decision Support • Presentation • Public Speaking • Team Leadership • Communication

PROFESSIONAL EXPERIENCE

Open Data Partners, River Forrest, IL
Data Scientist, 2014 - Present
Responsible for development of behavioral models to characterize network traffic for Fortune 500 companies .

- Developed baseline network traffic model using Hadoop to segment and sort historical data in MapR. Built Java/Scala framework to intercept network packets and characterize traffic at 10 GB/s (real-time).

FERMI NATIONAL ACCELERATOR LABORATORY, Batavia, IL
Associate Scientist, 2012 - 2014
Responsible for scientific data analysis and project management for this U.S. Department of Energy national laboratory specializing in high-energy particle physics.

- Established the reliability of an analysis method designed to extract certain properties from high-volume time-dependent signals using $\chi 2$ minimization and matrix inversion techniques with C++ scientific libraries.

BROOKHAVEN NATIONAL LABORATORY, Upton, NY
Goldhaber Fellow, 2009 - 2012
Three-year appointment to support scientific research for this U.S. Department of Energy multidisciplinary laboratory dedicated to the advancement of physics, chemistry, and biology, and other sciences.

- Recruited as a leader of the ambitious and renowned ATLAS experiment team, contributing initial discovery, coordination of analysis and mining efforts, and sophisticated statistical analysis of data.

COLUMBIA UNIVERSITY, New York, NY
Postdoctoral Researcher, 2007 - 2009
Postdoctoral fellow for the private ivy league research university located in NYC.

- Group leader during development of an algorithm to identify bottom-quark jets using decision trees.
- Pioneered analysis technique using a novel Monte Carlo integration technique with Bayesian priors.

EDUCATION & HONORS

Ph.D., High Energy Physics, University of Washington, Seattle, WA (2007)
Eugene Kenneth Miller Award for Graduate Research

B.A., Physics and Mathematics, University of Tennessee, Knoxville, TN (2001)
Douglas V. Roseberry Award for Excellence in Physics,
Sigma Pi Sigma Honor Society

SOFTWARE & TECHNICAL EXPERTISE

- Office Applications – Microsoft Office (Word, Excel, PowerPoint), Mac OS (Keynote, Pages)
- Operating Systems – Windows, Linux/Unix (Ubuntu), Mac OS 10+
- Programming Languages – C, C++, FORTRAN, Visual Basic, Java/Scala, Perl, BASH and Python
- Web Development – HTML, XML, PHP, JavaScript, Python
- Scientific/Big Data Applications – R, Hadoop (MapR), WireShark, ROOT, Numpy/Scipy, MatplotLib, scikit-learn, Spark