

## Data Science meets High Performance Computing

Friday, April 14, 2017  
12:30 - 1:30 PM

**Dr. J. Robert Michael**  
*Sr. Software Engineer*  
*Computational Biology*  
*St. Jude Children's Research Hospital*



### *Abstract:*

High Performance Computing (HPC) is a growing field in which computationally intensive workloads are accelerated using cutting edge hardware to minimize the runtime of complex algorithms. Management and optimization of HPC workloads, a time consuming task, requires identification of bottlenecks in both algorithm design and infrastructure. We present methods for automation of algorithm and infrastructure optimization using analytics tools such as data mining, classification, data cleaning and de-noising, correlation analysis, and regression.

### *About the Speaker:*

***J. Robert Michael, PhD (BS – Math, MS – Math, MS – Computer Science) received his PhD in Computational Science from MTSU with an emphasis in Quantum Physics. Employed as a HPC Specialist at St Jude Children's Research Hospital, Dr Michael assists researchers in a wide variety of domains in porting their computational and data intensive workloads to HPC architectures to accelerate research computing efforts.***

*Reception in Dunn Hall 336 - 1:30pm*