

CaRDS Board Meeting

Minutes

April 3, 2019

403 Ross Hall

Present: David Currie (Information Technology), Frank Hagelberg (Physics), Dana Harrison (Management/Marketing), Ferdaus Kawsar (Computing), Jean-Marie Hendrickson (Mathematics/Statistics), Phil Pfeiffer (Computing).

Guest: Edmon Begoli, Chief Data Architect, ORNL

1. Conversation with Edmon Begoli

The data science program at ETSU:

Edmon accentuated the need for training students in the fundamentals of data science, rather than placing the focus on applications to specific domains, such as marketing or healthcare. While the demand for graduates in data science/data analytics is presently high, their success on the job market depends critically on the breadth and rigor of their education in the underlying disciplines of mathematics and computer science.

According to Edmon's estimate, the high level of interest in data scientists will continue for a period of at least ten years.

Edmon expressed willingness to testify in support of the data science initiative at ETSU.

Membership in the NSF-funded Southeast Data Hub:

Edmon, one of the founders of the South Big Data Hub, is not directly associated with this institution any longer. However, he advised us that ETSU would be able to join the Hub, as no strict membership criteria are in place at this juncture, and declaring interest will be sufficient for acceptance. He suggested contacting Srinivas Aluru, Lead Investigator of the South Big Data Hub, with the request to join. Membership might open efficient ways for us to connect with industry, as well as other academic institutions. Among further advantages of Hub membership are invitations to participate in data-centered conferences and other data-related events.

ORNL opportunities for continuing education in data science:

Data-themed courses for scientists who want to become literate in data science or to extend their knowledge of this subject are offered at the Oak Ridge Leadership Computing Facility (<https://www.olcf.ornl.gov/>).

Further items:

- Joint faculty appointment between ETSU and ORNL might be possible.

- Graduate student research opportunities of three to twelve months duration might be available to our students through the ASTRO (Advanced Short Term Research Opportunity) program at ORNL.

2. Computation at ETSU

While local healthcare organizations (Ballad Health, Veteran Affairs Medical Center...) are primary candidates for data-related collaboration, joint medical data projects require a HIPAA (Health Insurance Portability and Accountability Act) compliant computational environment. At this time, ETSU researchers have access to such an environment through Amazon Web Services (AWS). Further, analyzing HIPAA-protected data requires a Business Associate Agreement (BAA) with the provider of the computational resources. ETSU has such an agreement with AWS.

As of now, no BAA is in place between ETSU and Advanced Computing Facilities (ACF). Also, the ACF price for HIPAA compliance is about twice that of AWS. However, ACF announced intentions to work on their present pricing.

3. New board member

Dr. Jean-Marie Hendrickson (Department of Mathematics and Statistics) joined the CaRDS board. Her areas of expertise include Statistical Machine Learning, Applied Multivariate Analysis, and Survival Analysis.