



**BIG DATA**

# Interdisciplinary Data Sciences Consortium



\* IDSC Seminar Series \*

September 16, 2016 2:00-3:00pm

**Location: ENB 313**

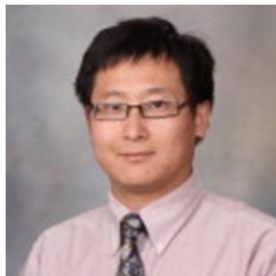
**Presents**

**Mr. Bo Qiang,**

**The Nielsen Company  
Oldsmar, Florida**

**Title: High volume data acquisition and processing in electrocardiography (ECG)**

**Abstract:** electrocardiogram (ECG) is one of the most widely performed medical procedures. It records the electric activities of the heart over a period of time with electrodes placed on the skin. An ECG tracing can carry valuable information such as heart rate, heart rhythm, blocked or narrowed arteries in the heart, structural problems of the heart, historic and ongoing heart attacks. ECG is usually noninvasive, painless and low cost. With today's advancements in high throughput signal acquisition, digital signal processing and machine learning algorithms, we can gain more insights about the heart with confidence. From an engineer's perspective, this talk will discuss the signal acquisition and processing of high volume ECG data. The presenter will also talk about his recent projects involving mobile ECG monitoring.



**Biography:** Bo Qiang is currently a data solution developer working for The Nielsen Company in Oldsmar, Florida. He is responsible for developing algorithms and software applications for media data analytics and visualization. Before joining Nielsen in April 2016, he worked for Mayo Clinic, Rochester, MN, as a lead engineer. His projects involve developing better solutions for medical technologies such as ECG and ultrasound imaging. Before joining Mayo in 2008, he worked for ASL Analytical in Oakdale, IA and developed infrared spectrometers for biomedical applications. He holds a

bachelor and a master degree, both in electrical engineering.