ORGANIZING COMMITTEE

Anna Do Andrea Ferroglia Ariyeh Maller Corina Calinescu Christopher Swift Emilie Boone Gulgun Bayaz Ozturk Giovanni Ossola Hamidreza Norouzi Joseph Jeyaraj Jeremy Seto Laura Ghezzi Mai Zahran Randall Hannum















9:00 AM

Breakfast & Viewing of New Faculty Posters

9:30 AM

Welcoming Remarks

9:45 AM

Katherine Poirier (Mathematics)
"The Algebra of Intersecting Loops"

10:10 AM

Denise Hardesty Sutton (Business)
"Suffrage & Soap: Advertising Women at J. Walter Thompson"

10:35 AM

Coffee Break

11:00 AM

Subhendra Sarkar (Radiologic Technology & Medical Imaging)
"Some of the Advances and Challenges of Brain Surgery with
MRI Guidance"

11:25 AM

Christopher Blair (Biological Sciences)
"Using DNA Sequences to Understand the Evolution and Diversity of New World Reptiles"

11:50 AM

Brittny Roberts (Mentor: Angran Xiao)
"Design and Prototyping of a Vacuum Activated Robot Arm"

12:00 PM

Miguel Gomez (Mentor: Alberto Martinez)
"Interaction of Ionophoric Polyphenols with Human Serum Albumin (HSA)"

12:10 PM

Hashir Qureshi (Mentor: Viviana Acquaviva)
"C.H.E.S.S. Computerized Homework Exercise SyStem"

12:30 PM

Lunch Break

1:00 PMKeynote Speaker



ASHWIN SATYANARAYANA

(Computer Systems Technology)
"The Power of Descriptive, Predictive and Prescriptive Data Analytics"

Data analytics extracts meaning from huge volumes of data to help improve decision making, handle wide varieties of data and data sources, and keep up with the rapid velocity of data in motion. It is useful for analyzing historical and real-time data, as well as forecasting the future, to distill what's valuable, and detecting patterns we may not have thought about. The goal of data analytics is to provide actionable insights for smarter decision making. Analytics are of three principal types: (a) Descriptive, which uses business intelligence and data mining to ask: "What has happened?",

(b) Predictive, which uses statistical models and forecasts to ask: "What could happen?" and (c) Prescriptive, which uses optimization and simulation to ask: "What should we do?". This talk will provide a platform for exploring data analytics in two application areas: search engines and education, to address questions such as: (a) Can data analytics be used to predict student grades? (b) How is data analytics used in search engines today?