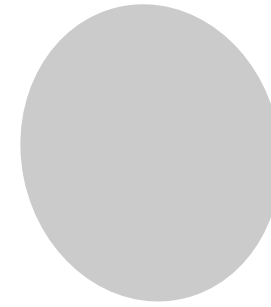


# Peng Sun, UC Irvine

## 1. Human decision making



Or



Left?

Right?

**SDSC**  
SAN DIEGO SUPERCOMPUTER CENTER

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### Performance Tuning

*Bob Sinkovits, Director for Scientific Computing Applications, SDSC*

1:30 -  
5:00

This session is targeted at attendees who both do their own code development and need their calculations to finish as quickly as possible. We'll cover the effective use of cache, loop-level optimizations, force reductions, optimizing compilers and

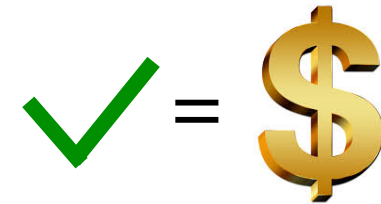
### Scalable Machine Learning

*Mai Nguyen, Lead for Data Analytics, SDSC*

*Paul Rodriguez, Research Analyst, SDSC*

Machine learning is an integral part of knowledge discovery in a wide variety of applications. From scientific domains to social media analytics, the data that needs to be analyzed has become massive and complex.

This session provides an introduction to approaches that can be used to perform machine learning at scale. Tools and procedures for executing machine learning



## 2. Human + Machine Intelligence

Better feature engineering; To derive a optimal combination rule

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*Peng Sun*

*Human Information Processing Lab, UC Irvine*

Computational challenges:

Past: Data size used to be dealt with: < 100 M

Now: Tens of millions of online game plays (in hundreds of gigabytes); Medical imaging videos (in TB).

What I want to learn and achieve:

To improve computation efficiency of my program

To process and store large amount of data more efficiently