PVG0033 Big data and machine learning (BDML), 3.0 credits

PhD course arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Course date: February 27th – March 3rd, 2017
Location: Uppsala

Content

- Introduction to big data
- Databases using NoSQL with a focus on MongoDB
- The Hadoop framework for distributed storage and computing
- The Spark cluster computing environment
- Introduction to R
- Unsupervised machine learning in R
- Supervised machine learning in R

During the course the participants will practice data management and analyses on their own data with plenty of opportunities to discuss the methodology and gain useful advice. Each day starts with lectures regarding theory, methods and their application on biological data. In addition to the lectures the course participants will work with data analysis of either provided data sets or using their own data. These laboratory exercises provide an important part of the course and students are required to submit lab reports that will be evaluated by the teachers. Before the course participants will have read several papers and texts regarding big data and machine learning as well as organizing their own data that they will be using during the course.

Prerequisites

Admitted to a postgraduate program in animal science, biology, veterinary medicine, informatics or related subjects, or to a residency program in veterinary science.
The course is primarily intended for graduate students, but post-doctoral researchers are also welcome to attend.

Information and application: http://www.slu.se/gs-vmas-courses
Course leader: Patrik Waldmann, patrik.waldmann@slu.se

Last date for application: February 1st, 2017