

2017 Duke-Tsinghua Machine Learning Summer School: Deep Learning for Big Data

July 25th - August 3rd, 2017 at Duke Kunshan University

Duke University and Tsinghua University are pleased to announce an exciting summer program in machine learning at Duke Kunshan University (DKU) for 2017. Open to all Duke undergraduates, graduate students, and postdocs, program participants will receive a thorough introduction to the application of machine learning methods to analyze massive data sets (“big data”) from an international team of leading faculty and researchers. A particular focus will be placed on methods that employ “deep” or hierarchical models, and participants will learn state-of-the-art techniques for the analysis of image, video, and text data. In addition to classroom instruction, students will be given hands-on training in code development and testing, with application to real datasets.

During the program, participants will learn:

- The latest techniques for deep model development and techniques for model learning
- Efficient methods for the inference of latent model parameters—from model application to real data
- The underlying statistics that motivate deep models
- How to apply advanced techniques in code development

The beautiful DKU campus in Kunshan, Jiangsu Province, China will host this unique program, with all classroom, meals, and student living arrangements provided on campus. Experiential learning components of the program will include excursions to nearby Shanghai. For more information, including course details and faculty bios, please visit <https://dukekunshan.edu.cn/en/events/machine-learning-2017>.

Requirements and prerequisites

Applicants should have knowledge of basic statistics at the level of a first-year graduate student. Prior knowledge of machine learning (model building, learning methods, and inference) is useful, but not required. A strong background in applied mathematics at the first-year graduate level is also needed. Experience with computational coding is important, using Python, C++, or R is needed (Python preferred). Applicants are required to bring a laptop computer capable of doing computational analysis, with Python the most desirable coding platform. The class will be taught in English, and therefore each student must be proficient in English communication.

Program costs

The student program fee during the early application period is ¥6800 CYN (~\$1000 USD) and includes tuition, on-campus housing, meals, and excursions to Shanghai (includes hotel—meals in Shanghai are not included). This fee increases to ¥7480 CYN (~\$1100 USD) during the normal application window. Duke participants are responsible for their own travel arrangements and any associated costs.

***The first 20 Duke participants accepted into the program during the early application period will receive a \$500 USD credit towards the program fee from the Office of the Vice Provost for Research. Please contact Chris Freel, Ph.D. (christopher.freel@duke.edu) if you have questions concerning this offer.*

Important program dates:

Early application period

Application deadline: March 10, 2017
Interview period: March 20 – March 31, 2017
Decision announcement: April 7, 2017
Deposit deadline: April 21, 2017

Normal application period

Application deadline: April 29, 2017
Interview period: May 2 – 12, 2017
Decision announcement: May 19, 2017
Deposit deadline: June 2 2017

For additional program details and registration, please visit:
<https://dukekunshan.edu.cn/en/events/machine-learning-2017>