

## **About Us**

The Advanced Innovation Center for Future Education of Beijing Normal University is an international and innovative center which aims to provide a high-level platform for educational research cooperation and cross-cultural communication on future education.

Supported by the Beijing municipal government, the center focuses on promoting the transition of Beijing educational public service from digitization to intelligence and supporting the establishment of a new model of educational service based on big data and artificial intelligence.

To pursue new heights in research and build a broader international platform, we are now opening new positions to both China and the world.

## **Big Data Researcher/ Assistant Researcher**

### **Job Description**

#### **Big Data Researcher:**

1. Build the basic environment and technological framework for educational data analysis.
2. Undertake educational data needs analysis, data collection, storage, integration, pre-processing. Construct analysis model and visualize the analysis results with the help of big data algorithm.
3. Provide data support and data decision analysis for educational decisions. Carry out data analysis for decisions from Education Bureau, schools, teachers, parents and students.

#### **Assistant Researcher:**

1. Work with professional data scientists to solve challenges in big data engineering and research. This post will provide opportunities to learn big data processing analysis and other latest technologies, as well as the latest data mining and deep learning algorithms and frameworks.
2. Participate in the design and implementation of forecasting models, build educational data processing platform and analysis modules.
3. Participate in the construction of various types of mathematical models for statistical and data mining, and get engaged in data analysis and computing.
4. Material collection related with data mining and analysis.
5. Complete data preprocessing and feature extraction tasks.

### **Qualifications**

#### **Big Data Researcher:**

1. Ph.D. degree (or Master's degree) in math, statistics, computer, educational technology and other related fields.
2. Familiar with statistics and data mining, machine learning, artificial intelligence, especially some commonly used analytical methods, such as correlation analysis, classification and prediction, cluster analysis, regression analysis, time series analysis. Familiar with R, SAS, SPSS, Python and other related software and computer languages.
3. Familiar with traditional relational database, data warehouse technology, data preprocessing technology, data integration technology, NoSQL database technology, memory database technology; Familiar with Hadoop (including HDFS, Map-Reduce, HBase, HIVE, etc.); Familiar

with Mahout, Spark cluster and other related technologies.

4. Familiar with JAVA / C / C ++ programming and have parallel programming experience, be able to design parallel data analysis algorithms and programs on the basis of Hadoop's Map-Reduce parallel computing framework and common MPI parallel computing framework.

Familiar with some algorithm design methods, such as partitioning, dynamic programming and regression.

5. Applicants should be familiar with data visualization technology and have conducted visualization projects.

6. Applicants who have experience in educational data analysis are preferred.

#### **Assistant Researcher:**

1. Bachelor degree or higher in computer or engineering, excellent fresh graduates will also be considered.

2. Familiar with some classic machine learning models (such as decision tree, SVM, etc.), as well as probabilistic statistical models.

3. Familiar with any of the following languages: Java, Python, Scala or R, or Ubuntu and other UNIX operating systems.

4. Have basic language ability to read and write English papers.

5. Applicants should have good communication skills and teamwork ability, work hard.

6. Good command of Chinese is a plus.

#### **Application Procedure**

1. Resume. Please list your academic and work experiences, published academic papers, scientific research projects, honors and etc.

2. Cover Letter; Please indicate where you find the job opportunity at the beginning.

3. 1-2 academic papers can be attached (Optional)

4. Shortlisted candidates will be invited for an interview. Skype interview can be arranged for overseas applicants.

5. Please put "**Position+ Name+ University**" in the email subject line, and send all the documents to hr-aicfe@bnu.edu.cn.