



## Certificate of Achievement

# Bao Bui-Quang

has completed the following course:

**DATA SCIENCE IN THE GAMES INDUSTRY**  
**UNIVERSITY OF DUNDEE**

This online course explored big data in the games industry and how to store and analyse data effectively to gain insights into game users' actions and behaviours.

4 weeks, 3 hours per week



**Andy Cobley**  
Senior Lecturer, School of Science and Engineering  
University of Dundee



**University  
of Dundee**

In association with



The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit [futurelearn.com/proof-of-learning/certificate-of-achievement](https://futurelearn.com/proof-of-learning/certificate-of-achievement).

This certificate represents proof of learning. It is not a formal qualification, degree, or part of a degree.



## Bao Bui-Quang

has completed the following course:

### DATA SCIENCE IN THE GAMES INDUSTRY UNIVERSITY OF DUNDEE

96%  
OVERALL  
SCORE

This online course explored big data in the games industry and how to store and analyse data effectively to gain insights into game users' actions and behaviours. The course looked at different models of data such as tabular data, atomic data and relational data. It also provided insights into how to store non-relational data at scale and how the games industry makes use of this data to build better games experiences and increase profits.

#### STUDY REQUIREMENT

4 weeks, 3 hours per week

#### LEARNING OUTCOMES

- Assess new techniques of data analysis
- Synthesise knowledge to be able to describe the types of data that techniques can best be applied to
- Design data stores that can manage data at scale
- Classify data in context, to select the most appropriate technique for data analysis
- Compare and evaluate new techniques for data analysis for a number of given scenarios in the games industry
- Design data stores that can manage complex data at scale for a number of given scenarios in the games industry

#### SYLLABUS

##### Week 1: Data in all its glory

- The Data Exhaust
- Tabular vs Big Data
- Disappearances in the CAP Triangle

##### Week 2: Breaking the CAP Triangle

- NoSQL

- Cassandra
- MongoDB
- Graphs and Graph Databases
- Dark Data's Hiding Place

##### Week 3: Taming the Data Exhaust

- Big Data and Distributed Systems
- Hadoop, HDFS, MapReduce and Other Technologies
- Real-time Systems
- Lambda

##### Week 4: Analysis is our answer

- Introduction to Statistics
- Consumer Testing
- Introduction to R and Python
- Bayesian Statistics
- Machine learning and data mining
- The Future of Data Science