

SKKU Data Analytics Scholarship PROGRAM

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SungKyunKwan University

**SKKU become an innovative and sharing university
creatively challenging, communicating and cooperating
to achieve 'Student Success' and 'Future Value'
based on 622 years of history and tradition.**



Sungkyunkwan Extension School

- Luxury educational contents
- Learner-Centered Education
- University's social contribution



Sungkyunkwan Extension School

- **Global Leading Extension School with open education platform**
- **Model for university lifelong education and a platform convergence/ multidisciplinary/ blended luxury content expansion suitable for industry needs**
- **Accreditation strengthened by Kingo Degree and Certificates**
- **Partnerships with domestic and foreign professional organizations and strengthening business capacity with globalization aim**
- **Technical Manager of the Customs IT Development Team**



- AI expert with WCO officer for data analysis
- To assist its officers in extracting knowledge from the data
- Enable them to take data driven action

Artificial Intelligence

State-of-the-art technology for Customs

Machine Learning
Natural Language Processing
Neural Networks
Deep Learning



Framework of the program

- **Fundamentals of Big Data Analytics**
- **Machine Learning Fundamentals and Applications**
- **Python Programming**
- **Applied Advanced Analytics**
- **Data Technology**
- **WCO BACUDA algorithm**
- **Block chain technology**
- **Practicum for data analytics**



Program schedules

Fundamentals of Big Data Analytics	Machine Learning Fundamentals	Analytical Skills for AI and Data Science	Network Analysis in Customs	WCO BACUDA algorithms	Leadership and Management
Unlock the Potential of Customs Data	Machine Learning Overview	Introduction to Evidence-based Decision Making: Examples in Economic Development	What are Networks	Price investigation (Web Scrapping)	Leadership and communication
Overview of Hadoop Ecosystem	Model Performance Metrics	Analytical Thinking and Methods (I): How to Define Research Question and Introduction to Statistical Approaches to Draw Inference	Network Analysis as a Method	HS6 recommendation	Decision-making process
Map Reduce and HDFS Fundamentals	Feature Selection and Engineering	Machine Learning Applications for the Public Sector	Social Network Analysis	Mirror data analysis	Conflict and coordination
NoSQL Databases	Machine Learning Algorithm	Discovering and Collecting Data: Practical Advice for Government Managers	Visualizing Network Models	DATE algorithm	Strategy, organizational design and effectiveness
Real-time Processing	Regression Analysis - Defining information needs and conducting regression analysis	Analytical Thinking and Methods (II): Correlation, Causation and Decision-Making	Foundational Network Measures		
Analytics	Regression Analysis - Structuring problems data and features	Barriers to Building a Data Practice in Government	Introduction to Big-FINDER Models		
Inductive and Deductive Investigation	Regression Analysis - Evaluating regression models and presenting the results	Data Collaborative: Creating Public Value By Exchanging Data	Air Passenger Intelligence		
Introduction to Pig and Hive	Classification Analysis - Conducting classification analysis	Strengthening a Data Analytic Culture	Customs Supply Chain Analysis		
Communicating Your Findings	Classification Analysis - Structuring problems data and features	Analytical Thinking and Methods (III): Optimization	Delinquent Taxpayer Analysis		
Onsite Deployment	Classification Analysis - Evaluating classification models	Practical Guide to Analytic Selection	Practice – CASOS ORA		
	Clustering Analysis - Conducting clustering analysis				
	Clustering Analysis - Structure problems data and features				
	Clustering Analysis - Evaluating clustering models				

Advantages of SKKU Scholarship

- **Education of data analysts focused on artificial intelligence**
- **Block chain technology training for customs data analysis**
- **Training customs experts capable of AI programming**
- **Education experts who can see overall customs data**
- **Customs data education combining theory and practice**
- **AI project implementation and evaluation using actual tariff data by individual team**

