



USC University of
Southern California

Advanced Analytics Engineer Job Description

JOB INFORMATION

<i>Job Code:</i>	185565
<i>Job Title:</i>	Advanced Analytics Engineer
<i>FLSA Status:</i>	Exempt
<i>Supervisory:</i>	
<i>Job Family:</i>	Business Data Analysis
<i>Job Family Group:</i>	Data Analysis
<i>Management Level:</i>	7 Individual Contributor

JOB SUMMARY

Designs, develops, deploys, and tests innovative business intelligence, data visualization, analytics, and emerging data solutions, in collaboration with department staff. Leverages business intelligence and advanced analytical software, and models to create and maintain ITS analytics assets. Demonstrates expertise in data analysis through descriptive, predictive, and prescriptive leading practices, discerning meaningful insights and solving problems. Demonstrates ITS values in action.

JOB QUALIFICATIONS:

Education

<i>Req</i>	<i>Pref</i>	<i>Degree</i>	<i>Field of Study</i>	
X		Bachelor's degree		
	X	Bachelor's degree		In
	X		Data Analytics	Or
	X		Information Science	Or
	X		in related field(s)	

Additional Education

Check here if experience may substitute for some of the above education.

Combined experience/education as substitute for minimum education

Work Experience

<i>Req</i>	<i>Pref</i>	<i>Work Experience</i>	<i>Experience Level</i>	
X		5 years		
	X	8 years		

Additional Work Experience

Check here if education may substitute for some of the above work experience.

Combined experience/education as substitute for minimum work experience

Knowledge, Skills and Abilities

<i>Req</i>	<i>Pref</i>	<i>Functional Skills</i>
X		Experience using statistical computer languages (R, Python, SQL, etc.) to manipulate data and draw insights from large data sets.
X		Experience with business intelligence tools, and working with and creating data models.
X		Experience scripting and programming in several languages.
X		Proficient use of query languages (e.g. SQL, MDX) and experience working with relational (e.g., MySQL, SQL Server, Oracle, Snowflake, Redshift) and non-relational (e.g., Mongo, NoSQL) databases.
X		Understanding of the physical infrastructure and integrations required to support advanced analytics shops.
X		Experience planning and performing unit and system integration testing, and facilitating performance and user acceptance testing. Substantial knowledge in security concepts and experience developing with secure code development techniques.
X		Experience with ETL processes and data integration, including real-time and batch data interfaces.
X		Ability to develop positive working relationships and strong rapport with team members.
X		Excellent written and oral communication skills, with experience writing test cases for new and existing code to ensure compatibility and stability.
X		Ability to provide both detailed information and summaries to management-level individuals and groups.
X		Proven problem-solving skills, and demonstrated ability to collaborate across functions and departments.

Other Job Factors

JOB ACCOUNTABILITIES

	<i>% Time</i>	<i>Essential</i>	<i>Marginal</i>	<i>N/A</i>
Designs and develops effective analytics solutions, contributing to the development and execution of data analytics processes and approaches aligned with the university's goals and stakeholder needs. Supports university compliance and security governance policies, embedding standards, procedures, and quality measures into workflows. Identifies bugs and software issues, and shares fixes with relevant stakeholders.				
Extracts data from multiple sources and performs complex predictive and prescriptive analyses. Leverages data to identify root causes of business issues, and communicates customer and stakeholder pain points, challenges, and needs. Adapts complex business insights and analysis, formulate solutions, and presents decision-making rationale to varied audiences.				
Develops quality, reliable software code. Maintains currency with emerging data analytics technology and trends, and supports continuous improvement for the university by developing new and revised software applications. experiment with leading-edge practices. Ideates use-cases for advanced data applications, e.g., advanced data management, data modernization, emerging practices, cognitive initiatives, and insight design and integration.				
Develops detailed understanding of relevant business processes, goals, and strategies to find opportunities for integrating data management and insight creation practices. Presents findings from analysis, makes recommendations to leadership, and supports project and task planning.				
Aids the cultivation of an inclusive environment and a culture of trust and transparency, sharing information broadly, openly, and deliberately. Builds and maintains collaborative relationships with diverse team members, peers and leaders. Actively embodies ITS values and behaviors (e.g., accountability, ethics, best-in-class customer service.)				

Other Requirements

<i>Essential:</i>	<i>Emergency Response/Recovery</i>	<i>Essential:</i>	<i>Mandated Reporter</i>
	In the event of an emergency, the employee holding this position is required to "report to duty" in accordance with the university's Emergency Operations Plan and/or the employee's department's emergency response and/or recovery plans. Familiarity with those		A mandated reporter who in his or her professional capacity has knowledge of, or reasonably suspects a person who is under the age of 18 years, elderly, or a dependent adult has been the victim of abuse or neglect must report the suspected incident. The reporter must contact a designated agency

Other Requirements

<i>Essential:</i>	<i>Emergency Response/Recovery</i>	<i>Essential:</i>	<i>Mandated Reporter</i>
	plans and regular training to implement those plans is required. During or immediately following an emergency, the employee will be notified to assist in the emergency response efforts, and mobilize other staff members if needed.		immediately or as soon as practically possible by telephone or in writing within 36 hours. By virtue of the associated job duties, this position qualifies as a mandated reporter as required by state law and USC's policy at: https://policy.usc.edu/mandated-reporters/
<i>Campus Security Authority (CSA)</i>			<i>Essential:</i>
By virtue of the associated job duties, this position qualifies as a Campus Security Authority as required by law and USC's policy at: https://dps.usc.edu/alerts/clery/			No

ACKNOWLEDGMENTS

The above statements reflect the essential and non-essential functions as necessary to describe the principle contents of the job. They are not intended to be a complete statement of all work requirements or duties that may be required of the position. I understand that I may be asked to perform other duties as assigned. USC reserves the right to add or change duties at any time.

The University of Southern California is an Equal Opportunity Employer. USC prohibits discrimination on any basis protected under federal, state, or local law, regulation, or ordinance or university policies. All employment decisions are based on individual qualifications and business need.

I acknowledge receipt of this job description and its associated physical requirements. I have read and understand the job description and job requirements and agree to abide by their contents. I realize that duties may be requested of me that are not specifically stated herein. I understand that I will be expected to adjust to potential fluctuations in work volume. I understand that, if I have any questions about the essential functions or expectations of my position, my supervisor and/or HR partner are available to discuss them with me.

Print Employee Name

Signature

Date

Print Manager Name

Signature

Date

This job description describes the general nature and level of work required by the position. It is not intended to be an all-inclusive list of qualifications, skills, duties, responsibilities or working conditions of the job. The job description is subject to change with or without notice, and Management reserves the right to add, modify or remove any qualification or duty. Nothing in this job description changes the existing at-will employment relationship between the university and the employee occupying the position.