



Bock Consulting

Job Analysis

Job Title	Business Intelligence Analyst II	Worker	
DOT Number(s)	161.267-026	Claim Number	
Employer	Port of Seattle	Employer Phone #	(206) 787-3000
Employer Contact	Amy Brown	Date of Analysis	February 6, 2017

- Job of Injury
 Transferable Skills Job
 New Job
 40 Hours Per Week
 5 Days Per Week

Job Description, Essential Functions, Tasks and Skills:



The Port of Seattle is a municipal corporation created on September 5, 1911 by the voters of King County. The Port of Seattle is divided into operating divisions, plus other departments that support the divisions and the broad mission of the Port: 1) Aviation Division, 2) Maritime Division, and 3) Economic Development Division.

This job analysis is for a worker in a Business Intelligence Analyst II position at the Port of Seattle.

In this position, the Business Intelligence Analyst is responsible for working with organizations and departments within the Port of Seattle to design and develop innovative ways to present and report complex information that can be used to help measure organizations' performance towards strategic goals, and quantify department level operational results. The Analyst uses business intelligence ("BI"), data science, data mining, and statistical modeling skills to access the requested data from large, multi-dimensional datasets collected by the Port.

The Business Intelligence Analyst works in the Airport Office Building ("AOB") connected to the main terminal at Sea-Tac Airport four days a week, and at the Port headquarters at Pier 69 one day a week. There are similar workstations at both locations. The Analyst works 40 hours per week, but weekend on-call coverage may be required.



Essential Functions of a Business Intelligence Analyst

- Review, analyze and evaluate business systems and end user needs by working with individuals and management teams to define, scope and plan advanced, custom analytical solutions and models that produce meaningful insights. Drive best-in-class information delivery through detailed requirements gathering, and creating and/or review



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technical documentation to ensure accurate development of reporting solutions.

- Design, build, optimize, and maintain business intelligence (“BI”) solutions to effectively deliver information to internal customers. Develop innovative programs and solutions using structured and unstructured, multi-dimensional data sources. Develop algorithms to detect patterns such as rare events and anomalies. Use statistical analysis and data science methodologies to find and track patterns. Apply sample statistics to detect reliable differences and support inferences from sample data.
- Bring data to life through storytelling and advanced data visualization techniques. Use data visualization tools to communicate actionable insights across multiple data sources. Establish and maintain best practice standards and procedures for design and development of analytical solutions and data visualizations.
- Manage multiple, concurrent projects to improve the way the Port accesses, analyzes and shares data, including but not limited to, data visualization, data acquisition, data integration, and market research.
- Function as a technical resource for reporting and analytics projects using BI technology, such as Tableau, SQL, and R.
- Integrate the data sources into Tableau Server environment, and address any identified issues quickly and thoroughly as needed. Assist in managing Tableau Server reporting environment including data sources, security, and subscriptions.
- Maintain an understanding of the data sources needed for the Port’s day-to-day operations. Deliver and maintain best practices in data acquisition, data integration, data visualization, optimization, and implementation of BI solutions.
- Identify or develop key customer/department performance measurements across the organization. Recommend frequency and scope of performance measurements. Link customer/department performance measurements to operational measurements to enable and influence change.
- Provide consultation on analytics projects as needed.
- Actively participate in the BI community by preparing and participating in presentations at local conferences as well as attending conferences and training to bring innovative ideas and approaches to the organization.
- Continuously maintain an understanding of BI technology, architecture, methodologies, and best practices.
- Build additional BI capability through training programs and one-on-one assistance.
- Perform other tasks as assigned.





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Necessary skills and abilities may include:

- Technical knowledge and familiarity of statistical methodologies, quantitative analysis, and information design principles. Advanced knowledge of development and use of analytical techniques, including segmentation and data mining.
- Ability to perform detailed data analysis (i.e., determine the structure, content, and quality of the data through examination of source systems). Ability to strategically problem-solve moderately complex issues, identify opportunities, and recommend appropriate solutions using quantitative and analytical skills.
- Solid understanding of relational database design best practices and research methods, and ability to work with large and complex data sets.
- Strong SQL writing experience, and familiarity with other programming languages preferred. Experience with enterprise reporting and data visualization tools, such as Tableau. Significant experience with Microsoft Excel and Access.
- High level of intellectual curiosity.
- Excellent organizational skills, and ability to manage multiple projects and competing tasks/priorities. Ability to set clear priorities and goals with little or no immediate supervision.
- Demonstrated analytical and business problem-solving skills.
- Proven customer service skills with both internal and external customers.
- Exceptional written and verbal communication skills.
- Excellent listening skills with the ability to translate moderately complex customer requests into completed tasks.
- Ability to collaborate and work well with multiple organizational and functional departments, including all levels of personnel.
- Ability to work in a detailed and proactive manner, with a strong sense of pride and ownership of the deliverables.
- Demonstrated ability to synthesize a large quantity of data into actionable conclusions and recommendations using information design best practices.
- Ability to rapidly learn emerging BI technologies and tools. Possess the drive for continuous innovation.



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Machinery, Tools, Equipment, Personal Protective Equipment:

- Windows-based computers with applicable accessories, and applicable applications, such as Tableau Server, and the Microsoft Office suite, including Excel, Access, Word, and Outlook.
- Multi-line telephone.
- General office equipment, such as desk/work surfaces, chair, cabinets and drawers, printer/copy machine, facsimile machine, and other items.
- General office supplies, including file folders, pens and pencils, and document organizer.



Education / Training:

Minimum Qualifications:

- Bachelor's degree in quantitative analysis, math, computer science, urban planning or related field.
- Three to six years in BI and/or business or financial analytics.
- Tableau Certification (Level 1).
- Five years of project development and/or planning experience.
- Valid Washington State Driver's license (or ability to obtain a valid license).

Preferred:

- Seven or more years in BI.
- Data visualization training.

Per the Dictionary of Occupational Titles (DOT):

161.267-026 Reports Analyst Specific Vocational Preparation (SVP): 7 (From 2 to 4 years)



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COGNITIVE AND BEHAVIORAL ELEMENTS/DEMANDS

Frequency Definitions:	
Continuously = Occurs 66-100% of the time.	Occasionally = Occurs 1-33% of the time
Frequently = Occurs 33-66% of the time.	Rarely = May occur less than 1% of the time.
Never = Does not ever occur.	
Comprehension	
Articulating and comprehending information in conversations.	Continuously
Reading, comprehending, and using written materials.	Continuously
Understanding and solving problems involving math and using the results.	Continuously
Using technology/instruments/tools & information systems.	Continuously
Working with two and three dimensional formats.	Rarely
Remembering	
Remembering spoken instructions.	Continuously
Remembering written instructions.	Continuously
Remembering visual information.	Continuously
Recalling information incidental to task at hand.	Continuously
Memorizing facts or sequences.	Occasionally
Remembering simple instructions.	Continuously
Remembering detailed instructions.	Continuously
Learning & Processing	
Effectively learning and mastering information from classroom training.	Continuously
Effectively learning and mastering information from on-the-job training.	Continuously
Learning from past directions, observations, and/or mistakes.	Continuously
Using common sense in routine decision making.	Continuously
Recognizing and anticipating potential hazards and taking precautions.	Continuously
Thinking critically and making sound decisions.	Continuously
Integrating ideas and data for complex decisions.	Continuously
Determining and following precise sequences.	Continuously
Coordinating and compiling data and information.	Continuously
Analyzing, synthesizing data and information.	Continuously
Tasking and Planning	
Performing repetitive or short-cycle work.	Rarely
Working under specific instructions.	Continuously
Completing complex tasks.	Continuously
Directing, controlling, or planning for others as necessary for basic tasks.	Rarely
Directing, controlling, or planning for others as necessary for complex tasks.	Rarely
Multi-tasking.	Continuously
Planning, prioritizing, and structuring daily activities.	Frequently



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Use Appropriate Behavior for Professional Work Environment	
Receiving criticism and accepting limits appropriately.	Continuously
Maintaining emotional control and organization under increased stress.	Continuously
Maintaining socially appropriate affect, temperament, and behavior.	Continuously
Monitoring own quality of performance and altering behaviors to correct mistakes or improve outcome.	Continuously
Working independently and/or unsupervised.	Continuously
Adapting to frequent interruptions, changes in priorities, or changes in work location.	Continuously
Responding effectively to emergency situations.	Never

Frequency Designations: Required Beneficial Not Necessary	
Maintaining Attendance and An Assigned Work Schedule	
Maintaining predictable and reliable attendance each work shift.	Required
Being punctual.	Required
Taking rest periods at set times or only at times determined by breaks in job responsibilities.	Required
Adjusting to a flexible schedule of work days and or shifts.	Required



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PHYSICAL DEMANDS

N/A: Not Applicable

S: Seldom (1-10% of the time)

O: Occasional (10-30% of the time)

STRENGTH: Sedentary Light

Frequency

F: Frequent (30%-70% of the time)

C: Constant (Over 70% of the time)

WNL: Within Normal Limits (talking, hearing, etc.)

Medium Heavy Very Heavy

Comments

Sitting	C	Working at desk, and participating in meetings.
Standing	S	Picking up printouts, making copies, sending fax, reloading paper in printer/copier, gathering office supplies, and disconnecting laptop computer from peripherals to take to a meeting.
Walking	S	Walking in the immediate work area to go to printer/copier or fax machine, and to gather office supplies. Walking to conference rooms adjacent to primary work space. May travel to other locations in the AOB for meetings.
Lifting (up to 5 pounds)	S	Paperwork/documents, laptop computer and mouse, ream of paper (5 pounds), and office supplies.
Carrying (up to 5 pounds)	S	Paperwork/documents, laptop computer and mouse, ream of paper (5 pounds), and office supplies.
Pushing/Pulling (up to 10 pounds)	S	Opening/closing drawers and covers on shelves in work area, and reloading paper in printer/copier.
Climbing Stairs/Ladders	N/A	Elevators are available to reach work area.
Work at Heights/Balancing	N/A	
Bending at Waist	O	Reaching for items on desk, filing or retrieving items in drawers below waist level, picking up printouts, making copies, sending fax, reloading paper in printer/copier, gathering office supplies, disconnecting laptop computer from peripherals to take to a meeting.
Bending Neck	C	Working on computer, working at desk, communicating with supervisor and other co-workers, and participating in meetings.
Twisting at Waist	N/A-S	Potentially if reaching for items on desk, or communicating with supervisor and other co-workers.
Crouching/Kneeling	N/A-S	Potentially if retrieving item under desk, or gathering items stored below waist level.
Stooping	N/A	
Reaching (floor to waist)	S	Picking up printouts, filing or retrieving items in drawers below waist level, gathering items stored below waist level, reloading paper in printer/copier, or retrieving item(s) under desk.
Reaching (waist to shoulder)	F	Using computer mouse, reviewing documents, processing paperwork, reaching for items on desk, opening/closing covers on shelves in work area while standing, pulling items from or placing items on shelves in work area while standing, picking up printouts, making copies, sending fax, disconnecting laptop computer from peripherals to take to a meeting.
Reaching (over shoulder)	S	Opening/closing covers on shelves in work area while sitting, pulling items from or placing items on shelves in work area while sitting, and reaching items stored above shoulder level.



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Driving	N/A				
Foot Controls	N/A				
Handling/Grasping	O	70	% Pinch Grasp	30	% Whole Hand Grasp
Fine Finger Manipulation	F-C	Using computer mouse, reviewing documents, processing paperwork, and writing.			
Keyboarding	F	Locating data sources, preparing data queries, adjusting/correcting data, summarizing data, preparing data and calculations for presentation, and preparing and responding to emails.			
Repetitive Motion	F	Using computer mouse and keyboarding.			
Writing	S	Taking notes, and editing documents.			
Talking	F	Communicating with supervisor and other co-workers, internal customers, and other stakeholders.			
Hearing	F	Communicating with supervisor and other co-workers, internal customers, and other stakeholders.			
Seeing	C	Normal or corrected vision.			
Normal Job Site Hazards	S	Limited – office work.			
Expected Environmental Conditions	C	Work is performed in climate controlled office space or conference room settings.			

The above job analysis represents the requirements of a specific job based on personal observations, discussions with employer representatives, and/or workers. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective quantifiable data. For this reason, a "best estimate" may have been used when reporting physical demand frequencies.

Analysis was done on the job site? Yes No

Job Analysis Reviewed By: Amy Brown

Completed by Vocational Provider Brice York, B.A., CDMS

Date January 6, 2017 Signature of

Vocational Provider 



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FOR PHYSICIAN’S/EVALUATOR’S USE ONLY

- The injured worker can perform the physical activities described in the job analysis and can return to work on _____
- The injured worker can perform the physical activities described in the job analysis on a part-time basis for _____ hours per day. The worker can be expected to progress to regular duties in _____ weeks/months.
- The injured worker can perform the described job, but only with the modifications/ restrictions in the attached report and/or listed below. These modifications/restrictions are (check one):
 - Temporary for _____ weeks _____ months
 - Permanent
- The injured worker cannot perform the physical activities described in the job analysis based on the physical limitations in the attached report and/or listed below. These limitations are (check one):
 - Temporary for _____ weeks _____ months
 - Permanent

COMMENTS:

Date _____ Physician’s/Evaluator’s Signature _____

Physician’s/Evaluator’s Name Printed _____

PLEASE RETURN COMPLETED FORM VIA FACSIMILE TO:

Port of Seattle Employee Health & Safety Department at (206) 787-3406