



Data Science - Job Profile

Line of Business: Cross-functional Job Family: Data Science Reports to (Job Title): Varies	Effective Date of Job Profile: July, 2015 Last Updated:
---	--

Job Family Summary	Data scientists are responsible for interacting with various internal and external stakeholders to solve complex business problems. Data scientists use advanced analytical methods and tools to develop actionable solutions for internal and external stakeholders to use to optimize business performance and strategic direction of PG&E's products, programs and operations. Incumbents must clearly and concisely present results for internal and external stakeholders to use and derive strategic and operational decisions.
Job Title	Data Scientist, Senior
Position Title	Data Scientist, Senior
PGE Job Level	Senior
SAP Job Code	51767243
Job Responsibilities	<ul style="list-style-type: none"> • Work with internal stakeholders to understand business needs and/or IT needs. • Use and synthesize data from various sources into a user-friendly model. • Construct analytic models and tools to analyze customer data, program accomplishments and other relevant industry data to support program directions and development. • Perform statistical and analytical modeling such as segmentation, clustering, time series, forecasting, classification, machine learning, etc. • Create, deliver and maintain an environment to run complex models utilizing cloud computing as necessary for big data solutions. • Solve complex problems though working with diverse teams at PG&E. • Develop project scopes and comprehensive plans. • Drive business performance through providing actionable solutions for internal and external stakeholders to use in decision making, operations and strategy. • Develop summary presentations for senior management and/or non-quantitative audiences. • Create streamlined visual tools for end-users in Tableau, SAS JMP, ArcGIS, or other prototyping, BI and production environments.
Supervisory Responsibility	
Education Minimum	<ul style="list-style-type: none"> • Bachelor's degree in econometrics, applied sciences, statistics, mathematics, computer science, electrical engineering or other quantitative discipline
Desired	<ul style="list-style-type: none"> • Advanced degree in econometrics, applied sciences, statistics, mathematics, computer science, electrical engineering or other quantitative discipline
License/ Certification Minimum	
Desired	
Experience Minimum	<ul style="list-style-type: none"> • Five years of relevant professional experience. A relevant master's degree can be substituted for two years of experience; a relevant PhD can be substituted for five years of experience.
Desired	<ul style="list-style-type: none"> • Typically requires a minimum of five years of related experience with a Bachelor's degree; or three years and a relevant Master's degree; or a relevant PhD where candidate demonstrated use of data science practices; or equivalent experience.



Data Science - Job Profile

Knowledge, Skills, Abilities Desired	<ul style="list-style-type: none">• Demonstrated track record and proficiency in data engineering / cloud computing: Hadoop/Spark, database/memory/file systems optimization and architecture, API's, Analytics as a Service, optimization of data flows, data plumbing• Demonstrated track record and proficiency in problem solving, scoping and active listening• Demonstrated track record and proficiency in decision sciences, scenario analysis, and process improvement (e.g. six sigma)• Demonstrated proficiency in one of the following: a) Statistics: statistical modeling, experimental design, sampling, clustering, data reduction, confidence intervals, testing, modeling, predictive modeling and other related techniques; b) Mathematics: analytic business optimization (inventory management and forecasting, pricing optimization, supply chain, quality control, yield optimization) as they collect, analyze and extract value out of data; simulation; c) Machine learning / software engineering / computer science: (algorithms, computational complexity, few programming languages); d) Visualization: dashboards design, metric mix selection and metric definitions; also GIS, spatial data as well as data modeled by graphs, graph databases• Demonstrated proficiency in at least one tool in data Engineering such as Hbase, SQL, Hive, Pig, etc.• Demonstrated proficiency in at least one of the following: a) Statistics: SAS, R, STATA, SPSS, etc.; b) Mathematics/Programming: Java, Python, C++, Matlab, Mathematica, etc.; c) Visualization: Tableau, SAS JMP, ArcGIS, Spotfire, d3.js etc.; d) Cloud Computing: Familiarity with Scripting and Installing an environment (i.e.: AWS)• Business acumen including strategy and consulting in the energy field and an understanding of interdisciplinary issues• Project and expectation management• Ability to clearly and concisely communicate and present complex analysis to both quantitative and non-quantitative audiences• Track record and demonstrated understanding of various energy industry issues
Supplemental/ Other Minimum	
Desired	