

# Data Scientist II

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 [amazon.jobs/en/jobs/942681/data-scientist-ii](https://amazon.jobs/en/jobs/942681/data-scientist-ii)

## DESCRIPTION

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The vision of Alexa Product Advisor (part of Alexa Shopping) is to provide the best possible answers for a wide range of questions around product being asked by customers. The first step in providing these answers is to form high quality classification and machine understanding of natural language questions into their core components (shape, product references, attributes, pronouns etc).

Alexa Shopping is looking for an experienced Applied Scientist to be a part of a team solving complex natural language processing problems and customer demand insights (including segmentation analysis and personas building using big data, ML and potentially AI). This is a blue-sky role that gives you a chance to roll up your sleeves and dive into big data sets in order to build simulations and experimentation systems at scale, build optimization algorithms and leverage cutting-edge technologies across Amazon. This is an opportunity to think big about how to solve a challenging problem for the customers and understand their requirements for products.

You will work closely with product and technical leaders throughout Alexa Shopping and will be responsible for influencing technical decisions in areas of development/modeling, that you identify as critical future product offerings. You will identify both enablers and blockers of adoption for product Q&A, and build programs to raise the bar in terms of Q&A product questions and predict the shaping of customer utterances as we move from simple to complex utterances.

The ideal candidate will have extensive experience in Science work, business analytics and have the aptitude to incorporate new approaches and methodologies while dealing with ambiguities in sourcing processes. Excellent business and communication skills are a must to develop and define key business questions and to build data sets that answer those questions. You should have a demonstrated ability to think strategically and analytically about business, product, and technical challenges. Further, you must have the ability to build and communicate compelling value propositions, and work across the organization to achieve consensus. This role requires a strong passion for customers, a high level of comfort navigating ambiguity, and a keen sense of ownership and drive to deliver results.

## BASIC QUALIFICATIONS

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- PHD or Masters Degree in Computer Science, Machine Learning, Operational Research, Mathematics, Statistics or a related quantitative field

- At least 3+ years of hands-on experience in predictive modeling and analysis
- At least 2+ years hands on experience programming in Python, R, Java, C#, C++ or other similar programming languages
- 1 +/- years of experience delivering systems into production with high precision.
- Experience applying various machine learning techniques, and understanding the key parameters that affect their performance.
- Experience developing experimental and analytic plans for data modeling processes, use of strong baselines, and the ability to accurately determine cause and effect relationships.
- Have a history of building systems that capture and utilize large data sets in order to quantify performance via metrics or KPIs.
- Understanding of relevant statistical measures such as confidence intervals, significance of error measurements, development and evaluation data sets, etc.\* Experienced in using multiple data science methodologies to solve complex business problems.
- Experienced in handling large data sets using SQL and databases in a business environment.
- Excellent verbal and written communication.
- Strong troubleshooting and problem solving skills.
- Thrive in a fast-paced, innovative environment.

## PREFERRED QUALIFICATIONS

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- PhD in Computer Science or Machine Learning, AI, Statistics, Electrical Engineering or equivalent;
- More than 4 years of industrial/academic experience in building classification models
- Extensive practical experience in several of the following areas: ML, Natural Language Processing, Recommendation Systems, Clustering techniques, applied ML or AI features/products/systems
- Ability to handle multiple competing priorities in a fast-paced environment
- Significant peer reviewed scientific contributions in premier journals and conferences
- Strong personal interest in learning, researching, and creating new technologies with high customer impact
- Experience with defining research and development practices in an applied environment;
- Proven track record in technically leading and mentoring scientists;
- Superior verbal and written communication and presentation skills, ability to convey rigorous mathematical concepts and considerations to non-experts.
- Strong fundamentals in problem solving, algorithm design and complexity analysis
- Experienced in writing academic-styled papers for presenting both the methodologies used and results for data science projects.

