



SENIOR DATA SCIENTIST
DEEP ROOT ANALYTICS
ARLINGTON, VA

Company Overview

Deep Root is an audience-powered analytics company that: identifies a client's ideal audiences, analyzes how the audiences consume media for optimal advertising, integrates the audiences into platforms for linear, addressable and digital ad delivery, and measures how the audiences are being impacted by paid and earned media.

Job Description

Deep Root Analytics is looking for a Senior Data Scientist to join our growing technology team. This is an opportunity to use your quantitative skills to immediately help direct billions of dollars in political, public affairs, and corporate advertising. If you're interested in a high-impact role within a small and nimble team, read on. This is a high-impact role within a small and nimble team.

The Data Science group at Deep Root is responsible for three main work streams:

- **Audience identification:** We use techniques from survey research and machine learning to identify the people who matter to advertisers. Our audience modeling process gauges the likelihood that each person in America is interested in buying a new car, or concerned about taxes, or worried that a robot is going to take their job, among other things.
- **Media consumption measurement:** We work with multiple sources of media consumption behavior, including data from television set top boxes, to make projections about the media consumption of our audiences. What percentage of Americans concerned about climate change watched *The Voice* last week? How often do new car buyers visit TheAtlantic.com? These are the kinds of questions we answer for brands, causes, and political campaigns.
- **Advertising impact assessment:** Once an audience has seen an ad, what are they inspired to do? Our proprietary attribution models gauge how often households and individuals were exposed to advertising campaigns, and we work with advertisers to measure the purchases, donations, votes, and opinion shifts that arise from ad exposure.

Specifically, the Senior Data Scientist will be tasked with the following:

- Build and test statistical models for audience identification and media consumption measurement.
- Work with engineering group to deploy these models.
- Assist with designing new approaches to advertising impact estimation.
- Explore new datasets with an eye towards integrating them into our products.
- Keep up with the latest developments across the data science world.

Qualifications & Skills

- Advanced degree in mathematics, statistics, computer science, or related field.
- Extensive experience with statistical modeling of large datasets.
- A proven track record of solving large-scale business problems with quantitative techniques, and at least 3-4 years of work experience in a quantitative role.
- Advanced R knowledge, particularly with the “tidyverse” family of packages.
- Intermediate SQL knowledge (PostgreSQL and Microsoft SQL Server preferred)

Preferred Qualifications

- Intermediate Python skills
- Experience with Random Forest and multilevel GLM models
- Experience with data visualization tools like Tableau or Power BI
- Familiarity with big data tools such as Hadoop, Spark, or Amazon EMR

Characteristics of a Successful Candidate

- We are looking for smart, driven, likable and curious people.
- You need to be highly adaptable to a rapidly growing and changing business environment.
- You are a quick learner and problem solver.
- You are a good communicator, especially to non-technical and non-quant colleagues.
- You keep on top of latest developments in field.
- You have an ability and eagerness to constantly learn and teach others.
- You are an exceptional problem-solver and have a self-starter attitude.

Application

- Please email a resume, sample work product (preference for code), and three references to info@deeprootanalytics.com with the subject line: SENIOR DATA SCIENTIST. Please be prepared to explain and walk through code samples.
- Applicants should be prepared to answer detailed technical questions and be willing and able to participate in a demonstration exercise administered by Deep Root’s Data Science team.