Job Title: **Data Scientist, Hockey Operations**
Reports to: **Vice President of Hockey Strategy & Research**
Manages People: N/A
FLSA Status:
Revised:

Summary

We are seeking a data scientist for the Hockey Operations department with the Buffalo Sabres. Subject to the minimum qualifications listed below, we welcome applicants of all levels of experience. This position will report directly to the Vice President of Hockey Strategy & Research. This position is available for either in-person or remote work (with occasional travel).

Duties & Responsibilities

The Data Scientist's responsibilities may include any of the following:
- Quantify, evaluate, and project the performance and abilities of hockey players and teams
- Analyze data from all aspects of hockey operations
- Build, validate, and automate models for hockey player and team performance using multiple data sources
- Collaborate with a team of data scientists, data engineers, and hockey operations personnel
- Prepare written and/or automated reports for presentation to hockey operations personnel
- Communicate effectively and perform all job responsibilities in a variety of work settings, including in virtual meetings and distributed work environments, at in-person meetings, and in other settings
- Clearly communicate complex technical concepts to others
- Creatively use existing data to advance our understanding of the sport of hockey, the performance of players and teams, etc
- Perform ad-hoc and time-sensitive data analyses upon request
- Attend in-person meetings upon request
- Fulfill other related duties and responsibilities

Minimum Qualifications for the Position:

The Data Scientist should have the following minimum qualifications:
- Bachelor's degree or higher in statistics, data science, machine learning, computer science, mathematics, engineering, or a related field
- Strong knowledge of programming for data analysis, preferably using R, Python, Julia, and/or other related tools
- Demonstrated experience working with large, complex datasets

- Experience building a variety of statistical models, and an understanding of those models
- Experience writing shared code and using version control tools in team work environments
- Strong written and verbal communication skills in English
- Enthusiasm to work for a professional sports team
- Ability to work a flexible schedule (including nights, weekends, and holidays when necessary) and to occasionally travel (e.g. for in-person meetings)
- Ability to responsibly analyze and handle sensitive and confidential data

Applicants possessing the following qualifications will be given preference:
- Advanced training in statistics, data science, machine learning, computer science, mathematics, engineering, or a related field (e.g. via a master's degree, doctoral degree, or industry training)
- 3+ years of experience as a data scientist (preferably with prior experience in sports analytics) and/or sufficient experience working professionally in sports analytics
- Demonstrated experience working on long-term, open-ended research problems (preferably in sports analytics)
- Deep understanding of and (demonstrated experience building) a variety of statistical models (e.g. generalized linear models, generalized additive models, hierarchical models, mixture models, non-parametric models, tree-based models, Bayesian models and MCMC, bagging, boosting, supervised learning, unsupervised learning, neural networks, time series models, etc)
- Experience analyzing and building models with spatio-temporal data
- Strong knowledge of hockey and/or sports analytics
- Experience working with sensitive and confidential data
- Proficiency with SQL, basic understanding of modern database architectures and data structures, etc
- Experience building dashboards, web applications, and/or interactive data visualizations with any tool (e.g. HTML, CSS, JavaScript, Shiny, Tableau, Dash, etc)

Applicants with a portfolio of projects available to be reviewed during the interview process will be given preference.

Critical Competencies

- Detailed
- Organized
- Creative
- Collaborative
- Adaptive
- Responsible
- Confidential
- Proactive
- Competitive
- Proficient in oral and written communication

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