Data Scientist III - Quality and Patient Safety initiatives

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Type: Full-Time
Salary: $85,000 - $105,000 per year
Posted: 35 days ago
Application Due: 02/23/2026
Category: Health and Medical Services;
Data Scientist III - Quality and Patient Safety initiatives

Job No: 538643
Work Type: Full Time
Location: Main Campus (Gainesville, FL)
Categories: Health Care Administration/Support
Department: 29013100 - MD-QUALITY & PATIENT SAFETY

Job Description

Classification Title:

Data Scientist III

Job Description:

The **Data Scientist III** will advance the Quality and Patient Safety initiative (QPSi) under the UF College of Medicine (COM) by harnessing clinical and operational data to improve patient safety and clinical care quality across the UF Health enterprise and beyond.

The Data Scientist will collaborate with interdisciplinary teams and numerous stakeholders to create and deploy innovative approaches to improve patient safety and health care operation pathways. The position might participate in clinically relevant feature extraction from raw data, designing and developing algorithms to model complex systems, providing data science expertise, developing reliable infrastructures for the secure rollout of AI models, meeting with end-users and key stakeholders to understand operational questions to be addressed, and working with other team members to support development of AI models and their impact in clinical setting.

About This Role:

Applied Artificial Intelligence

- Collaborate with clinical teams to design data-driven decision-making models and translate decision points into available clinical data.

- Explore and evaluate scientific methodologies, such as reinforcement learning, net benefit models, state space models, causal inference, and generative AI considering uncertainly, constraints, and multiple competing objectives.
- Design and implement AI models, optimizing physical and time resources.
- Lead innovative approaches to integration of different data modalities into AI models to mitigate complex healthcare challenges.
- Contribute robust, clean, and maintainable code to standard AI and machine learning pipelines, ensuring reproducibility and efficient collaboration across the team.
- Leverage modern software engineering practices (version control, code reviews, unit testing) to maintain high-quality model development processes.
- Identify opportunities for advanced analytics and integration approaches.

Enhancement of Data and Model Infrastructure

- Develop scalable feature extraction pipelines to programmatically transform raw clinical data into model-ready inputs for various healthcare scenarios.
- Engineer automated data validation frameworks to handle missing data, schema enforcement, categorical encoding, and derived variables at scale.
- Architect and implement robust ETL workflows for data ingestion and transformation that enforce healthcare data governance and privacy standards.
- Implement feature stores or shared transformation libraries to ensure strict parity between training and inference environments and minimize training-serving skew.
- Conduct technical benchmarking and integration testing to evaluate new analytics tools and models within the production stack.

MLOps and Clinical Deployment

- Engineer production-grade CI/CD pipelines to automate model testing, deployment, monitoring, and retraining cycles in clinical environments.
- Architect and maintain containerized microservices (e.g., Docker) to serve model predictions via secure, low-latency APIs.
- Build comprehensive observability and logging infrastructure to track system health, latency, and model drift in real-time.
- Implement model versioning and rollback strategies to manage updates triggered by new data, clinical practice changes, or organizational needs.

Knowledge Dissemination

- Create comprehensive reports and documentation summarizing the project status, summary recommendations, and final outcomes.
- Develop interactive dashboards and other reporting mechanisms that facilitate real-time analytics and model insights.
- Collaborate with teams and subject matter experts to prepare technical and non-technical presentations, analysis, and reports for leadership, program design reviews, and operational readiness reviews to share knowledge and promote partnership.

About the College of Medicine:
The University of Florida's College of Medicine is committed to advancing health through education, research, and patient care. With a focus on innovation and excellence, the college prepares future healthcare leaders through a rigorous curriculum that combines basic sciences with hands-on clinical experience. The College of Medicine emphasizes interdisciplinary collaboration and community engagement, fostering and environment where students, faculty, and staff work together to improve healthcare outcomes. The College is home to cutting-edge research initiatives and state-of-the-art facilities, providing an exceptional training ground for aspiring medical professionals. Dedicated to enhancing the health of community, the College of Medicine plays a pivotal role in shaping the future of medicine.

For more information about the College of Medicine and its programs, visit College of Medicine.

We Offer Exceptional Benefits:

- **Low-cost State Health Plans**: Medical, Dental, and Vision Insurance
- **Life and Disability Insurance**
- **Generous Retirement Options** to secure your future
- **Comprehensive Paid Time Off Packages**: (includes over 10 paid holidays, as well as paid family, sick and vacation leave)
- **Exceptional Personal and Professional Development Opportunities**: Access to UF Training & Organizational Development programs, leadership development, LinkedIn Learning, and more
- **Tuition Assistance** through the UF Employee Education Program
- **Public Service Loan Forgiveness** (PSLF) Eligible Employer

Expected Salary:
$85,000 - $105,000 annually

Required Qualifications:

A Bachelor's Degree in data science, statistics, bioinformatics, analytics, or similar field and five years of experience; Master's Degree in data science, statistics, bioinformatics, analytics, or similar field and three years of experience; Doctoral Degree in data science, statistics, bioinformatics, analytics, or similar field and one year of experience.

Preferred:

The ideal candidate will be:

- Highly proficient in Python coding, including data management libraries.
- Experienced with SQL programming.
- Expertise in design and implementation of data-driven projects.

- Excellent analytical and problem-solving abilities, with a strong understanding of data-driven approaches to decision-making.
- Experience with artificial intelligence frameworks, such as graph neural networks, natural language processing, generative AI, multi-objective optimization, causal inference, state space modeling, or reinforcement learning.
- Experience with large-scale distributed computing environments (SLURM, Dask).
- Familiarity with systems administration tools and workflows (docker, ansible, CI/CD).
- Familiarity with MLOps principles and best practices.
- Experience with PowerBI reporting and visualization.
- Hands-on experience with healthcare data management and analytics.
- Excellent communication skills, with both technical and non-technical audiences.
- Highly resourceful team-player, with the ability to be extremely independent, interact professionally, and utilize effective organizational skills.

Special Instructions to Applicants:
In order to be considered, you must upload your cover letter, resume, and contact information for three professional references.

Application must be submitted by 11:55 p.m. (ET) of the posting end date.

Health Assessment Required:
No

Applications Close: 23 February 2026

To apply, visit https://explore.jobs.ufl.edu/en-us/job/538643

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The University of Florida is an Equal Employment Opportunity Employer.

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