

Job title: Full stack data scientist

About ShanX Medtech BV

ShanX Medtech BV (SXM, NL) is a dynamic young company dedicated to revolutionizing healthcare through innovative diagnostic tools. Our journey began with a deeply personal experience—the founder's mother's near-fatal struggle with a poorly treated bacterial infection. This ignited our mission to transform infection management, propelling us to develop pioneering solutions that prevent unnecessary suffering.

At SXM, impact is paramount. We're proud to introduce KAIROS IVD, our groundbreaking rapid antibiotic susceptibility testing device, poised to redefine how bacterial infections are treated. Our goal is clear: to equip healthcare professionals with the means to make informed treatment decisions swiftly and accurately. Through our innovative solutions, we're combating antibiotic resistance, enhancing patient outcomes, and saving lives.

Join us in shaping the future of healthcare, where every moment is vital in the fight against bacterial infections. We're seeking a motivated Full stack data scientist to join our team and contribute to the development of this crucial diagnostic device. This is an exceptional opportunity to join us in our early stages and play a pivotal role in our future success.

About the role

As a Full-stack data scientist at SXM, you will take on diverse responsibilities spanning data analysis, machine learning, and deployment, with the potential to contribute to data generation in a biological laboratory. Your role will be pivotal in transforming hundreds of thousands of raw data points into actionable insights and scalable solutions, seamlessly integrating your work into the development of our envisioned commercialized KAIROS system.

Responsibilities

Your responsibilities include, but are not limited to:

Conducting R&D: Contribution to the generation of relevant data that will be used as an input to (training of) algorithms.

Data Analysis: Leading the analysis of large and complex datasets, including clinical data, and reference data generated from our KAIROS system. Applying statistical (e.g. PCA) and machine learning techniques to extract insights, identify patterns, and uncover relationships that inform diagnostic product development.

Algorithm Development: Training, developing and refining algorithms and models for data analysis, interpretation, and predictive analytics. This may involve designing algorithms for diagnosis and more, risk prediction, or treatment response prediction to support diagnostic assay development but also implementation in application software.

Feature Engineering: Identifying and engineering relevant features from raw data to enhance the performance and accuracy of (predictive) models. This includes preprocessing data, selecting informative features, and optimizing feature representations for improved model performance.

Model Validation: Validating (predictive) models and algorithms using appropriate validation techniques, including cross-validation, bootstrapping, and holdout validation. Assessing model performance metrics such as accuracy, sensitivity, specificity, and area under the curve (AUC) to evaluate predictive performance.

Data Visualization: Creating clear and informative data visualizations, including plots, charts, and graphs, to communicate results and insights effectively to stakeholders. Visualizing complex data structures and relationships to facilitate understanding and decision-making.

Required Qualifications

- Master's degree in data science, computer science, computational biology, bioinformatics, biomedical engineering, or a related discipline.
- >3 years' experience in a similar function

- Proficiency in programming languages commonly used in data science such as Python, R, or SQL. The ability to write efficient code for data manipulation, analysis, and modeling is necessary.
- Familiarity with data management and preprocessing techniques, including data cleaning, transformation, and normalization.
- Machine Learning: Experience with applying machine learning concepts and algorithms, including supervised and unsupervised learning, classification, regression, clustering, and dimensionality reduction.
- Ability to create clear and informative data visualizations using tools like Matplotlib, Seaborn, or ggplot2. Proficiency in conveying complex data insights through charts, graphs, and dashboards is important.
- Fluency in English.
- Openness to learn about performing experimental work in a laboratory environment and with bacteria.
- Transferring algorithms and communication to professional application software developers. Maintain algorithm integrity/performance.

Preferred Qualifications

- Familiarity with the fundamentals of in-vitro diagnostics, including knowledge of microbiology.
- Good communication skills to non-technical stakeholders
- A passion for working in a young company environment.

Perks and benefits

- Competitive compensation and benefits package
- Access to professional development opportunities for career growth and advancement, including training resources.
- Flexible schedule and work arrangements
- Dynamic and collaborative work environment

Important Dates: CVs are reviewed on a rolling basis, and the position will be filled as soon as the ideal candidate is identified. The start date will be determined accordingly.



Position Details: Full time contract for one year extending to three years.

Location: The position will be hybrid online and in Eindhoven.

Disclaimer: At SXM, we're dedicated to equality and diversity, welcoming individuals from all backgrounds.

Position reference name: SXMRef0015-2025_Full stack data Scientist

Interested?

Ready to Make Your Mark?

If you're ready to drive meaningful impact and be part of a team that's changing the game, we want to hear from you! Apply now by sending your resume and a cover letter detailing why you're the perfect fit for the role to info@shanxmedtech.nl.