



(Senior) Data Scientist

About SpectaCell

SpectaCell is a TechBio start-up from imec, VIB and Ugent, building a first-of-its-kind digital microscope designed to become the industry standard for functional testing of novel cancer and immune therapies. By combining breakthrough imaging technology with deep AI-driven biological insights, we are bridging the gap between lab research and large-scale biopharma manufacturing. We are on a mission to build a scalable tools-and-data business that empowers researchers and manufacturers to accelerate the development of life-saving therapies through smarter tools and better data.

The role

We are looking for a hands-on, versatile (Senior) Data Scientist to join our early team and help turn complex live-cell imaging data into robust models, scalable analysis pipelines, and product-ready insights. You will work across the full product development cycle: designing advanced models and analysis workflows that are reproducible from raw data to visualization; and helping shape how our data science capabilities support both internal R&D and future customer-facing products. You will work closely with biologists, software engineers, product leaders, and future users. You will be one of the people who decides what biologically meaningful signal looks like, how we measure it, and how we turn it into a differentiated product.

This is a high-ownership role for someone who likes solving hard technical problems in real systems, enjoys working across disciplines in a growing team of go-getters, and wants to help turn ambitious science into tools that will accelerate the development of novel therapies.

What will you do

- Design and validate advanced models for cell segmentation, tracking, interaction analysis, and quantitative feature extraction using deep learning and computer vision.
- Develop and optimize data analysis workflows for live-cell imaging, ensuring robustness, reproducibility, and clear traceability from raw data through to visualization and biological interpretation.
- Build and oversee scalable analysis pipelines that support both exploratory science and product development, including preprocessing, model inference, quality control, and downstream analytics.
- Collaborate closely with biologists and assay scientists to translate model outputs into actionable biological metrics that can inform experiments, product decisions, and customer value.

- Contribute to the development of intuitive, cloud-based visualization and analysis tools that make advanced imaging analytics accessible to scientists and future customers.
- Drive troubleshooting and root-cause analysis across datasets, models, and pipelines, identifying failure modes and improving accuracy, reliability, and performance.
- Help define technical strategy for imaging analytics, model evaluation, and pipeline architecture, with increasing ownership depending on your level of experience.
- Mentor data scientists, review code and analysis design, and raise the quality bar across the team if joining at a senior level.
- Work effectively in a fast-moving, multidisciplinary start-up environment, taking ownership across a broad range of tasks as needed.

What we're looking for

- Master's or PhD degree in Computational Biology, Bioinformatics, Data Science, Computer Vision, or a related field.
- For Data Scientist level: 2-4 years of relevant experience in image analysis, applied machine learning, or computational biology. For Senior Data Scientist level: 5+ years of experience in imaging or high-dimensional biological data analysis.
- Strong proficiency in Python and modern machine learning frameworks such as PyTorch and/or TensorFlow, together with image analysis libraries such as OpenCV and scikit-image.
- Experience building robust analysis pipelines and working with data pipeline automation, cloud platforms (AWS, GCP, or Azure), version control (Git), and containerization (Docker).
- Strong problem-solving and debugging skills, with the ability to investigate issues across data, models, code, and biological interpretation.
- Experience with algorithmic thinking, research methodology, and rigorous model validation in scientific or product-oriented environments.
- Ability to communicate clearly across scientific and technical domains and work effectively in cross-functional teams.
- For senior candidates, experience mentoring others, reviewing technical work, and helping shape scientific or technical direction is a strong plus.
- A practical, self-directed, low-ego mindset, and excited to take on broad responsibilities within an entrepreneurial environment.
- Fluent in English, both spoken and written.

Why SpectaCell

- You will have broad ownership from day one and play a defining role in building one of SpectaCell's first core data and analytics capabilities. You will work across disciplines rather than inside a narrow defined function.
- You will join a young, ambitious start-up at a stage where your work can materially shape the company's trajectory.
- We offer a fast-paced working environment in our Ghent-based hub and a flat reporting structure that puts you at the heart of our mission.
- You will benefit from an attractive salary package with a wide range of benefits, including meal vouchers, group insurance, a mobility budget, flexible working hours, and the opportunity to participate in an employee stock option plan.

Interested? Contact us via info@spectacell.com