

icometrix – Senior Data Engineer, Medical Imaging & AI Platforms

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At icometrix, we transform complex medical imaging data into actionable insights that improve patient care. Our AI-powered solutions support clinicians and researchers worldwide in neurological diseases such as multiple sclerosis, Alzheimer's disease, and other brain disorders.

As we continue to scale our imaging and AI capabilities, we are looking for a Senior Data Engineer to build and maintain the next generation of clinical imaging data infrastructure that powers our products, research collaborations, and machine learning initiatives.

As a Senior Data Engineer, you will design, develop, and maintain the data platforms that enable large-scale processing of multimodal neuroimaging and clinical datasets.

You will work at the intersection of medical imaging, cloud infrastructure, AI, and software engineering, creating robust data pipelines that transform raw imaging data into high-quality datasets for product development and validation, scientific insights, and clinical deployment.

This role requires both strong software engineering skills and a deep understanding of biomedical imaging data and clinical data, in particular in multiple sclerosis and Alzheimer's disease.

What do we expect from you?

Key Responsibilities

Data Engineering & Automation :

- Develop and scale robust ETL pipelines for clinical, imaging, and derived biomarker data.
- Create scalable workflows for large-scale data processing.
- Manage orchestration systems and workflow automation.
- Improve monitoring, logging, and reliability of production data systems.

Imaging and Clinical Data Platforms in the Cloud :

- Design and maintain scalable pipelines for combining imaging (mostly MRI) data with clinical or PRO data in the cloud environment.
- Develop automated workflows for ingestion, validation, quality control, anonymization, and processing of imaging and clinical data.
- Standardize datasets using industry standards such as HL7 FIHR, DICOM, OMOP CDM, CDISC, RadElement
- Build infrastructure supporting reproducible image processing, biomarker extraction, and linking to clinical and PRO data.

AI & Machine Learning Enablement :

- Collaborate with data scientists and AI engineers to create high-quality training datasets.
- Build feature stores and data versioning frameworks.
- Support development and deployment of machine learning solutions for clinical applications.
- Enable reproducible research-to-product transitions.

Infrastructure & Performance :

- Optimize computational workloads across cloud and high-performance computing environments.
- Manage large-scale storage solutions for medical imaging datasets.
- Improve processing throughput and resource utilization.
- Contribute to cloud architecture and infrastructure automation.

Collaboration :

- Work closely with clinical scientists, data scientists, regulatory teams, and software engineers.
- Support external research collaborations with hospitals, universities, and industry partners.
- Mentor junior engineers and contribute to engineering best practices.

Required Qualifications

Education :

- MSc or PhD in Biomedical Engineering, Computer Science, Data Engineering, Bioinformatics, Medical Physics, or related field.

Technical Skills :

Strong experience in:

- Python
- SQL and data modeling
- Linux environments
- Data pipeline development
- Cloud platforms (AWS, Azure, or GCP)
- Containerization (Docker)
- Workflow orchestration systems
- Git and modern software development practices

Experience with at least several of:

- Medical imaging (MRI, CT, PET)
- HL7 FIHR
- DICOM
- OMOP CDM
- BIDS
- Machine learning pipelines

- High-performance computing (HPC)
- REST APIs
- Data governance and quality control
- Scientific Python ecosystem
- PowerBI

Preferred Qualifications

We are especially interested in candidates who have:

- Experience and interest in developing robust data pipelines.
- Experience structuring large MRI datasets and clinical data.
- Worked in academic-industry collaborations.
- Experience with multimodal datasets combining imaging, biomarkers, and clinical outcomes.
- Experience working in regulated healthcare environments.
- Experience with neuroimaging research.

Ideal Candidate Profile

The ideal candidate is a technically strong engineer who:

- Combines software engineering rigor with scientific curiosity.
- Has experience building data platforms rather than only analyzing data.
- Understands the challenges of reproducibility in medical AI.
- Can translate research prototypes into scalable production systems.
- Enjoys collaborating with clinicians, scientists, and engineers.
- Takes ownership of complex, multidisciplinary projects.

- Lots of learning opportunities
- A lot of freedom and collaboration with a diverse set of nice colleagues.
- Hybrid work possible
- A market conform wage
- A job advancing healthcare and technology
- A job in an innovative, growing company with a worldwide impact
- Exposure to cutting-edge research through collaborations with renowned academic and clinical partners.

<https://icometrix.com/>