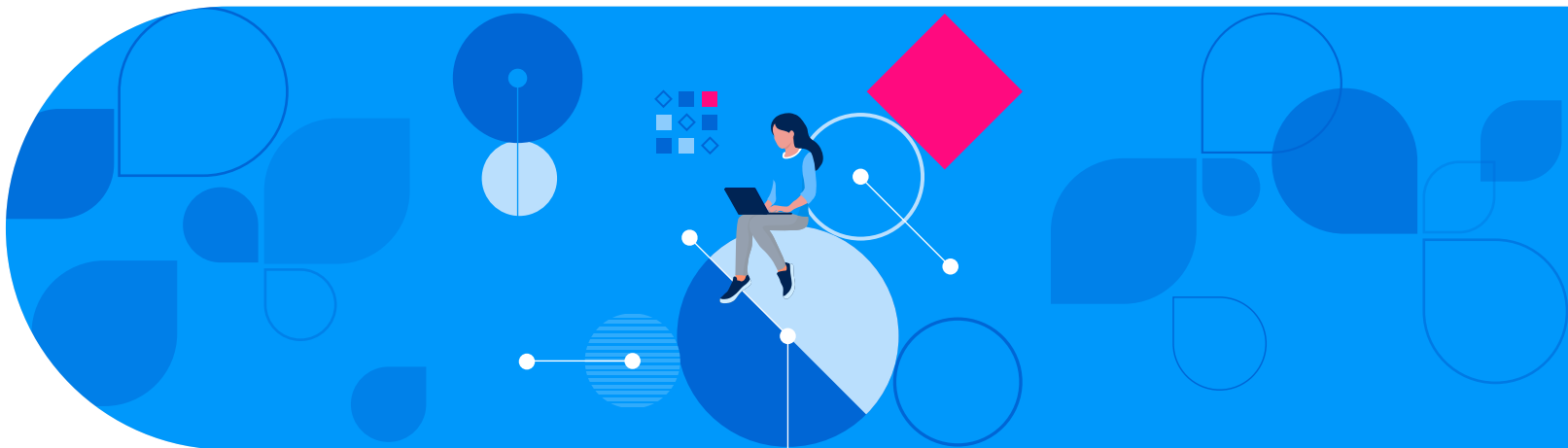


# Build AI and machine learning models faster with SAS® Viya® Workbench



## Many voices. Different needs.

Decision maker



Data engineer



Data scientist and modeler



Application developer



DevOps (IT)



## Market Consideration

Technology is rapidly changing. Modelers and data scientists, both experienced and novice, need a development environment that supports experimentation and innovation. They also need access to a variety of data and AI capabilities for data analysis and model building. They require flexibility to use different programming languages based on expertise. Their working environment needs to allow for simple importation of existing data and programs.

Furthermore, developers, modelers and data scientists want a dedicated workspace and a high-performance coding environment for quick results. They seek integration with preferred IDEs and Git, for seamless self-provisioning in the cloud, with minimal IT intervention. Effective version control is also crucial. The infrastructure must be flexible to meet project needs, with configurable compute options tailored to workload requirements and access to specific compute resources. The environment must be scalable to efficiently iterate and manage costs.

## The Challenge

Organizations continue to face development challenges with systems, people and processes, including:

- **Data access:** Challenges in obtaining quality data to begin a project. SAS Viya Workbench allows developers to immediately get data to validate and prepare for development.
- **Speed of development:** Lost time due to inefficiencies. Viya Workbench lets users quickly spin up, reuse existing code and choose a coding language.
- **Deployment:** Disruptions in building and deploying quality models. Viya Workbench helps developers prepare and deploy models quickly and efficiently.
- **Infrastructure:** Limitations in flexibility and choice. Viya Workbench allows developers to provision the right-sized environment and scale up and down as needed.
- **Cost:** Mounting expenses from infrastructure needs. With Viya Workbench, users optimize efficiency and reduce costs and complexity.

## Our Approach

SAS Viya Workbench is a cloud-based compute environment that empowers developers, data scientists and modelers to easily conduct data management, analysis and model development using SAS or Python through Visual Studio (VS) Code or Jupyter Notebook interfaces. With Viya Workbench, developers are up and running in the cloud in seconds. Most SAS®9 procedures and Viya multithreaded procedures are available. The algorithms tested in a performance study of Viya, which were 30x faster than the competition\*, are the same algorithms running in Viya Workbench.

## The SAS Difference

SAS empowers developers, modelers and data science teams with freedom, flexibility and advanced analytics to build models, with trusted output, faster.

### Develop models quickly while optimizing efficiency and costs.

- Spin up a Viya Workbench session in the cloud in seconds.
- Configure server size to match your workload requirements by choosing your cores, memory and GPUs.
- Minimize cloud computing costs with self-terminating sessions. Sessions resume automatically where they last terminated.
- Use fast point-and-click self-provisioning, requiring minimal IT support after the initial setup.

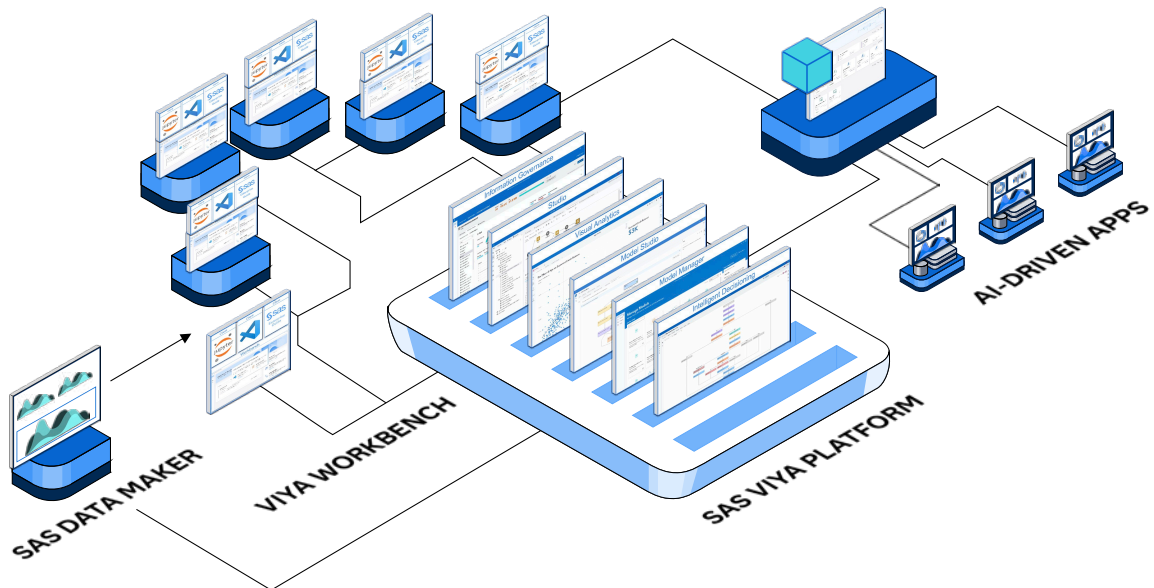
### Accelerate team productivity for SAS and Python developers.

- Experience minimal to no learning curve for new users experienced with SAS or Python.
- Choose your favorite coding language (SAS or Python) and IDE (VS Code or Jupyter Notebook).
- Create new or use existing projects. Develop from the ground up or import existing SAS or Python code.
- Collaborate using Git for distributed version control, backups and archiving.
- Save model score code as executable modules for easy production use.

### Access industry-leading analytics from a partner you can trust.

- Develop innovative analytics and AI and machine learning models quickly and consistently.
- Optimize the development process, including data preparation, exploration, advanced analytics and AI/ML modeling.
- Incorporate the latest and highly performant SAS analytical capabilities and procedures.
- Use the latest Python APIs, enabling data retrieval, parsing, updating and manipulation.

## Putting it all together Ever-evolving hub for developer-oriented applications



\*Performance at Scale – Comparing AI/ML Performance of SAS Viya vs. Alternatives (The Futurum Group; June 2023)

For more information visit [sas.com/workbench](https://sas.com/workbench).

