



# Our Mission

Heidi AI's mission is to provide every user with access to their own personal supercomputer, ensuring that all users, regardless of their technical background, have the tools they need to succeed and reach their full potential.

## Heidi AI: Supercomputing for Enterprises

### Your Cloud-Based Personal AI Supercomputer for Enterprise Businesses

Introducing cutting-edge technology to enterprises can be daunting. Companies often lack access to high-performance computing (HPC) resources and AI infrastructure, and building or maintaining such infrastructure can be prohibitively expensive. Businesses face challenges integrating computational tools into their business models, from accessing preloaded datasets to finding software that bridges technical complexity with beginner-friendly learning environments. Heidi AI helps future-proof technology and will support quantum computing when perfected.

**Heidi AI for Enterprises** is a cloud-based, SaaS supercomputing platform designed to make HPC & AI accessible and affordable for enterprise businesses. Heidi leverages powerful infrastructure, preloaded datasets, and educational tools to help employees simulate real-world phenomena, build AI applications, and explore advanced computational concepts. With partnerships that include leading scientific organizations, some funded by grants from the US Department of Energy, Heidi ensures employers and employees alike are equipped with world-class resources to achieve hands-on learning and solving in science, technology, engineering, and mathematics—all at an accessible per-user annual price.

Heidi also integrates with on-premises data centers.

## Cloud-Based Supercomputing for Enterprises: HPC, AI, and STEM Solutions with Heidi

### How it works

Heidi brings the power of supercomputing to enterprises, offering an intuitive platform that makes HPC & AI accessible and effective for employers and employees alike. By simplifying deployment and providing robust resources, Heidi enables hands-on learning and solving.

- Heidi gives every user access to their own personal HPC & AI supercomputer in the cloud. Included with Heidi is the best practices curriculum of how to use Heidi, visual examples of 3D renderings from HPC & AI scientific applications, and over 150 open source HPC & AI applications.

### Heidi Technology Stack

Heidi empowers employees and employers by providing an accessible, cloud-based supercomputing platform tailored to enterprises. It simplifies the integration of HPC & AI into businesses with preloaded datasets, easy-to-use tools, and scalable infrastructure.

- Features the On-Demand Data Center (ODDC) for cloud access and automated infrastructure deployment.
- Includes a comprehensive curriculum on building and deploying HPC & AI clusters in the cloud.
- Scales resources effortlessly while ensuring secure and reliable access via cloud-based infrastructure.

### ParaTools Pro for E4S™ - Extreme-scale Scientific Software Stack

ParaTools Pro for E4S™ utilizes Heidi AI's robust infrastructure to provide employees and employers with an integrated suite of HPC & AI tools designed specifically for enterprise environments. Assembled under a DOE (U.S. Department of Energy) grant and included in the Adaptive Computing Technology Stack, ParaTools Pro for E4S™ simplifies the deployment of complex applications and empowers businesses to explore cutting-edge technologies in a hands-on setting. With over 150 preloaded applications, including TensorFlow, PyTorch, and Keras, ParaTools Pro for E4S™ enables learners to seamlessly engage in HPC & AI, computational science, and STEM-focused challenges using Heidi's robust infrastructure.

- Supports specialized hardware, including GPUs and high-speed network adapters on Azure.
- Integrates seamlessly with Slurm, Moab/Torque, and MPI environments for efficient workload management.
- Provides a unified experience across commercial cloud environments, ensuring flexibility and scalability.

## Features

- Data privacy and security
- Customizable learning modules
- Hands-on experience with industry-standard tools
- Remote accessibility
- Cross-disciplinary applications
- Built-in analytics for employers
- Manager training and support
- Plug-and-play deployment
- Collaboration friendly
- Preloaded datasets supporting image classification

## Benefits

- Easy integration into enterprises
- Flexible infrastructure tailored for businesses
- Accessible via any web browser
- Intuitive and beginner-friendly interface
- Real-world HPC & AI training experience
- Includes TensorFlow, PyTorch, and much more
- Affordable, per-user annual pricing
- No lock-in with any Cloud Service Provider
- Multi-node scaling for collaborative learning
- Pay only for additional compute when needed

## Heidi Delivers Advanced Learning Opportunities for Enterprises in HPC, AI, STEM, and Beyond

Heidi is designed to empower enterprises across the business world with hands-on learning experiences in HPC, AI, and other computational sciences. By providing accessible, cloud-based supercomputing resources, Heidi enables employers to incorporate advanced computational tools into their business models. Here are key use cases illustrating how enterprises can learn and benefit from Heidi's capabilities:

- **Environmental Science:** Simulate weather patterns, model the effects of climate change, or explore deforestation impacts using preloaded climate datasets.
- **Physics:** Experiment with fluid dynamics, aerodynamics, or material stress simulations to enhance understanding of Newtonian mechanics and advanced physics concepts.
- **Biology and Genomics:** Dive into protein folding, DNA sequencing, or disease modeling with tools that integrate biology and computational science.
- **Chemistry:** Model chemical reactions and molecular interactions to study real-world applications in medicine and pharmaceuticals.
- **Data Science and AI:** Train machine learning models, analyze large datasets, and explore data visualization techniques in preparation for AI-driven careers.

- **Space and Astronomy:** Simulate planetary orbits, black hole activity, or star formation using astrophysical datasets for an engaging take on space science.
- **Engineering:** Perform stress tests on virtual bridges or simulate wind resistance in vehicle designs, applying engineering principles in computational environments.
- **Social Science and Economics:** Run simulations on population dynamics, disease spread, or economic outcomes, introducing HPC to humanities and social sciences.
- **Mathematics:** Explore advanced computational problems, such as optimization and algorithm development, with access to high-performance tools.
- **Technology:** Build, test, and deploy small-scale AI applications to understand the basics of programming and machine learning workflows.

### About Adaptive Computing

Adaptive Computing is a global software company headquartered in Naples, Florida, USA and has provided advanced applications and tools to the High-Performance Computing industry for over two decades with hundreds of deployments on the world's largest computing installations. Adaptive Computing products and services are used by organizations of all sizes across a broad range of industries such as High-Tech Manufacturing, Aerospace Engineering, Defense, Universities and Research Labs, Life Sciences, Oil and Gas Exploration, Financial Services, and Data Analytics. Some of the world's largest clusters, grids, and data centers use Adaptive's Moab HPC Suite and Cloud Solutions to maximize performance and value, simplify management, and create a competitive advantage.



[www.adaptivecomputing.com](http://www.adaptivecomputing.com)

Headquarters: 1100 5th Ave South, Suite 201, Naples, FL, 34102  
Phone: +1 239-330-6093 | [Contact Us](#) | [info@adaptivecomputing.com](mailto:info@adaptivecomputing.com)

© 2024 Adaptive Computing Enterprises, Inc. All rights reserved.