

Innovate Freely, Protect Relentlessly

Background

Artificial intelligence (AI), machine learning (ML), and analytic models promise to improve care, reduce costs, and optimize treatments. However, traditional methods for multi-site AI/ML training often expose model intellectual property and data or rely on de-identification, which is time-intensive, incomplete, and risks re-identification.

EscrowAI® eliminates these barriers by ensuring secure, privacy-protected collaboration without exposing sensitive data or intellectual property. With robust security and privacy protections, EscrowAI accelerates innovation while safeguarding both data stewards and algorithm developers.

Enabling privacy enhancing computing on real world, PII/PHI

EscrowAI is a patent protected¹, privacy enhancing collaboration platform enabling algorithm developers and data controllers and processors to work in a way that protects data sovereignty, individual privacy, and intellectual property at rest, in transit, and, uniquely, during the computing cycle. Our privacy protections enable computing on real world, clinical data eliminating the need to de-identify the data.

Data Steward (DS)	Algorithm Owner (AO)/Researcher
DS receives a request from an AO with a data specification. If the DS decides to participate in the project, they curate, harmonize, and encrypt the data to a specification, and place it in blob storage. <i>The data is never seen nor shared.</i>	The AO encrypts their model and places it in EscrowAI where it is containerized and sent to the DS HIPAA compliant environment. <i>The intellectual property is never seen.</i>
EscrowAI brings the encrypted data set and algorithm into a Trusted Execution Environment (TEE), operating in the DS's Azure cloud environment, where they unencrypt and compute within the encrypted TEE. <i>The data/model are protected during computing.</i>	EscrowAI checks the AO/DS mutually approved output from the TEE computing cycle prior to it being delivered to the AO. The process is repeated for training and deployment. <i>Only the AO receives the output from the TEE.</i>
<u>Advantages include:</u> <ul style="list-style-type: none"> Protects data sovereignty (data doesn't leave) Protects patient privacy (data is never seen) Enables ethical licensing of data for research 1-time SaaS implementation in hours No IT burden: Maintained by BeeKeeperAI Streamlines approvals 60-70% 	<u>Advantages include:</u> <ul style="list-style-type: none"> Protects intellectual property Accelerates time to research by 9-12 months Enables computing on protected PII/PHI Curates an immutable record of development Reduces approvals overhead by 40-60% Enables confidential federation

Learn More

BeeKeeperAI® is a spin-out of the University of California, San Francisco's Center for Digital Health Innovation where the founding team learned first-hand the challenges facing researchers and data stewards seeking to accelerate innovation while optimizing data sovereignty, privacy, and security. Click for an overview of [EscrowAI](#). [Contact us](#) to learn more about how we can help secure innovation to unleash impact!

¹ BeeKeeperAI and EscrowAI are registered copyrights of BeeKeeperAI. EscrowAI is protected by US patents #11,531,904; #11,748,633; #12,001,965; #12,093,423; #12,099,630; #12,111,951; #12,141,319; and other patents pending.