



**COMPANY  
RESEARCH  
PROFILE**



**PRODUCT NAME**  
ZeroReveal®

- Founded 2016
- Fulton, MD United States
- www.enveil.com
- info@enveil.com
- Employees: 11-50
- Regions of operation:  
United States, United Kingdom,  
Europe

**KEY EMPLOYEES**



**Dr. Ellison Anne Williams**  
Founder & CEO



**Craig Trautman**  
VP of Global Sales



**Dr. Ryan Carr**  
CTO & VP of Engineering

Subsectors: **Data Security/Data Compliance**

**OFFERING**

Enveil is a pioneering data security company protecting Data in Use to enable secure search, analytics, sharing, and collaboration. Leveraging advances in homomorphic encryption to ensure nothing is ever revealed during the entire processing lifecycle, Enveil enables secure and private data collaboration through a market-ready, flexible, and adaptable trust framework. Organisations can securely collaborate in a completely decentralized manner while each entity retains positive control of its data assets.

**PROBLEM BEING SOLVED**

Enveil's business-enabling and privacy-preserving capabilities for secure data search, sharing, and collaboration protect data while it's being used or processed – the 'holy grail' of data encryption. Enveil ZeroReveal® allows analysts at financial institutions to securely derive insights, cross-match, and search third-party data assets without ever revealing the contents of the search itself or compromising the security or ownership of the underlying data.

These secure and private Intra/Inter-Bank search capabilities enhance intelligence-led decision making by allowing users to securely derive insight from multiple data sources, even when using highly sensitive or regulated indicators.

**TECHNOLOGY**

Enveil's groundbreaking use of homomorphic encryption means encrypted operations are run on any type of data at scale, with processing times that ensure minimal impact on user experience. While homomorphic encryption has been a topic of academic research for decades, Enveil's solution breaks through this computation barrier bringing homomorphic encryption from the realm of the theoretical to the commercially practical. Enveil allows data to be securely used where it is and as it is today, delivering nation-state level security without requiring any system overhauls.

**PRODUCT DESCRIPTION**

Enveil is a leader in the category of Privacy Enhancing Technologies (PETs), delivering the first and only NIAP Common Criteria-certified Data in Use security capabilities. The company's flagship line of ZeroReveal® solutions leverage homomorphic encryption to enable secure search, analytics, sharing, and collaboration of sensitive data assets. By decoupling from the storage technology layer, Enveil is able to sit above the data, allowing organizations to retain control of their data assets while leveraging existing storage methods and access controls mechanisms. The Enveil ZeroReveal® solution facilitates encrypted search as a two-party, proxy layer software system. The ZeroReveal® Client application lives within the Enterprise's trusted environment while the ZeroReveal Server application lives within the environment of the Data. The solution can be deployed in any configuration, including one-to-many or many-to-many. The deployment model is optimized for highly distributed, decentralized multi-party, and/or hybrid cloud deployments.

Enveil focuses exclusively on solutioning to secure Data in Use and integrates with existing at-rest and in-transit data security solutions, acting in a complementary capacity to provide full lifecycle security via standard APIs. Using proprietary technology that has led to 17 patent applications to date, Enveil uses homomorphic encryption techniques to achieve unmatched levels of scale – the solution has been proven to perform robustly and at speed over terabytes of data on cloud platforms, over commodity hardware, and on special purpose platforms like FPGAs and GPUs.

## TOTAL FUNDING - \$15M

### Investors:



Enveil announced a \$10 million in Series A funding in February 2020 and is using the capital to globally advance the business-enabling capabilities of its ZeroReveal® product line.

Zulfe Ali, Managing Partner at C5 Capital: “Enveil is stepping up to solve a fundamental security challenge: preserving privacy while ensuring that data remains usable. By empowering organizations to secure data throughout its lifecycle, Enveil’s contributions go beyond adding business value and ensuring compliance – we believe the company’s innovative use of Privacy Enhancing Technologies will positively impact enterprise and consumer privacy and security across verticals.”

Jorn Lambert, EVP, Digital Solutions at Mastercard: “In our ever-expanding digital world, exponential amounts of data are being produced, which can help companies innovate and provide better products and services to consumers. In doing so, companies have a responsibility to individuals, to one another, and to society as a whole to be good stewards of the data they manage and use for those consumers. We look forward to partnering with Enveil to explore solutions that advance these standards to enable critical business functions.”

## TRACTION/GROWTH

- The company opened a UK office in 2020 to expand its profile in Europe and support ongoing customer deployments and business development opportunities in the region
- Enveil recently announced a new encrypted machine learning product, ZeroReveal® ML
- Enveil’s solutions are applicable across multiple verticals including Financial Services, Healthcare, Audit/Compliance, and Cloud Security. The majority of the current commercial use cases for Enveil’s enterprise-ready, Common Criteria-certified capabilities are focused on enabling organizations to perform homomorphically encrypted operations over unencrypted data.

## PARTNERSHIPS



Enveil is an Advanced Technology Partner and a Public Sector Partner within the Amazon Partner Network (APN), and can deploy natively over AWS Commercial, GovCloud, and C2S.



Enveil is a Co-Sell Ready Partner within the Microsoft Partner Network and can deploy over Azure, Azure GOV, and Confidential Computing Environments.



Enveil is Thales eSecurity ASAP Partner and has completed integrations with products including Vormetric, SafeNet, SafeNetAT, and Thales Federal.

## MANAGEMENT BIO

### Dr. Ellison Anne Williams - Founder & CEO

Dr. Ellison Anne Williams is the Founder and CEO of Enveil, the pioneering data security company protecting Data in Use. Building on more than a decade of experience leading avant-garde efforts in the areas of large-scale analytics, information security, computer network exploitation, and network modeling, Ellison Anne founded the startup in 2016 to protect sensitive data while it’s being used or processed – the ‘holy grail’ of data encryption.

Leveraging her deep technical background and a passion for evangelizing the impact of disruptive technologies, Ellison Anne has helped define and advance the Data in Use security space and cultivated Enveil’s capabilities into category-defining solutions that enable secure search, analytics, sharing, and collaboration. In addition to her ongoing contributions as a cybersecurity mentor, speaker, and thought leader, Ellison Anne has been recognized as an [SC Media Reboot Leadership Innovator Award](#) winner, a [Woman to Watch in Security](#), and a [CyberScoop Leet List Honoree](#).

Under Ellison Anne’s leadership, Enveil has been recognized with a number of awards including: SC Award Winner “Best Cloud Computing Security Solution”, SINET 16 Innovator, Cybersecurity Breakthrough Awards “Overall Encryption Solution of the Year”, Maryland Cybersecurity Awards “Cybersecurity Innovator of the Year”, Cybersecurity Impact Award Winner, FCA TechSprint Winner, and RegTech 100. Just four months after founding the company, Ellison Anne presented the company’s groundbreaking technology at the 2017 RSAC Innovation Sandbox, becoming the youngest company ever selected to participate in the esteemed competition, and was ultimately recognized as one of the winners.

Ellison Anne started her career at the U.S. National Security Agency and the Johns Hopkins University Applied Physics Laboratory and is accomplished in the fields of distributed computing and algorithms, cryptographic applications, graph theory, combinatorics, machine learning, and data mining. Ellison Anne holds a Ph.D. in Mathematics (Algebraic Combinatorics), a M.S. in Mathematics (Set Theoretic Topology), and a M.S. in Computer Science (Machine Learning).

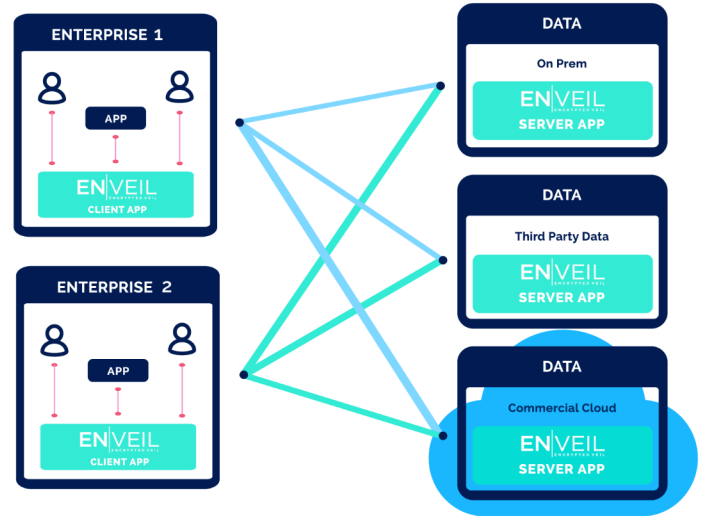


Enveil's business-enabling capabilities for secure search, sharing, and collaboration protect data while it's being used or processed – the 'holy grail' of data encryption.

### CLOSING THE LAST GAP IN DATA SECURITY

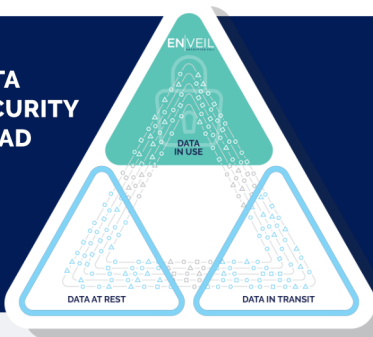
Enveil closes the gap in data security by protecting data while it is being used, allowing organizations to **securely search, share, and collaborate with sensitive data without risk of compromise or incidental exposure.**

By decoupling from the storage technology layer, Enveil is able to sit above the data, requiring no changes to the underlying environment, and allowing organizations to **retain positive control of their data assets while enabling secure sharing and collaboration.**



*ZeroReveal®: A two-party proxy layer software system*

### DATA SECURITY TRIAD



### NATION-STATE LEVEL SECURITY FOR THE PRIVATE SECTOR

Enveil is the only Data in Use security company to achieve NIAP Common Criteria security certification, verifying its capacity to provide nation-state level protection for sensitive data assets in the global marketplace.

### DELIVERING PRIVACY-PRESERVING CAPABILITIES ACROSS VERTICALS

- Secure Data Collaboration**  
 Enable secure and private data sharing and collaboration to enhance intelligence-led decision making.
- Secure Data Monetization**  
 Monetize data assets and realize new revenue sources without compromising privacy or security.
- Continuous Monitoring**  
 Reduce liability and enhance data governance by enabling secure watchlist tipping and alerting.
- Insider Threat**  
 Keep insider threat monitoring encrypted throughout the processing lifecycle.
- Secure Cloud Processing**  
 Confidently process sensitive workloads and data in the Cloud by ensuring interactions remain encrypted during processing.
- Edge/IoT Compute**  
 Never reveal Intellectual Property, or PII when searching untrusted or third-party data sources.

**ABOUT ENVEIL** Enveil is a pioneering data security company protecting Data in Use to enable secure search, sharing, and collaboration. Founded by a seasoned team of PhD mathematicians and computer scientists, Enveil is revolutionizing data security by eliminating the Data in Use vulnerability that people have been chasing for more than 20 years. Learn more at [www.enveil.com](http://www.enveil.com).



## CASE STUDY

### KNOW YOUR CUSTOMER RISK ASSESSMENTS

Each year, large Financial Institutions spend hundreds of millions completing KYC checks on new and existing customers, however, no framework exists to collectively mitigate risk through the sharing of customer risk intelligence across privacy jurisdictions or between entities. This lack of access to existing intel often forces institutions to make risk-rating decisions based on incomplete information.

Enveil was recently asked to examine how this collaborative gap might be overcome by leveraging advancements in Privacy Enhancing Technologies. Utilizing the data security company's breakthroughs in homomorphic encryption, Enveil worked alongside market participants to develop a flexible and adaptable trust framework capable of facilitating secure and private Know Your Customer

(KYC) and Customer Due Diligence (CDD) processes to enhance intelligence-led decision making. The effort validated how homomorphic encryption can uniquely enable intelligence-led risk decisions to address key challenges in the financial sector. Analysts were able to securely and privately cross-match and search regulated data across privacy jurisdictions in a business-relevant timeframe while ensuring sensitive assets remained protected during processing in accordance with regulatory requirements.

The use case also validated Enveil's capabilities as a foundational component of a trust framework enabling Financial Institutions to expand data inputs in order to better understand customer risk and make faster, better informed onboarding decisions. It further lays the groundwork for future intra- and inter-bank applications of these innovative cryptographic techniques.

**Enveil ZeroReveal® solutions enable entities to securely leverage external and cross-jurisdictional data assets *in place* without revealing the contents/interests of the search or the results returned.**



## A PRIVACY ENHANCING TECHNOLOGY-ENABLED SOLUTION

Powered by homomorphic encryption, **Enveil ZeroReveal® protects searches, watchlists, and analytics during the entire processing lifecycle**, enabling secure collaboration while maintaining a natural and defensible separation. With Enveil, data owners maintain control of their data assets and access to it. By leveraging this decentralized data model, participants are never required to move/consolidate data assets, make changes to their data environment, or re-encrypt their data.



### Auditable sharing

without requiring ownership transfer of sensitive data assets



### Secure interactions

with datasets on third-party systems to verify sensitive, questionable inputs



### Improved quality

and efficiency of suspicious activity detection & reporting, KYC, and CDD



### Mutually beneficial

capabilities that are accessible to all participating parties



### API-based interfaces

for interactions without requiring changes to underlying infrastructure