# Dossier: GALOIS, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $899,498.00

**Award Date:** 2024-04-02

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Galois, Inc. is a research and development firm specializing in computer science with a focus on creating trustworthy, reliable, and secure systems. Their primary business revolves around applied research and the development of cutting-edge technology solutions, particularly in areas where security and correctness are paramount. Their core mission is to advance the state-of-the-art in formal methods, cryptography, and trusted computing to address critical vulnerabilities in existing and emerging technologies. Galois aims to solve problems related to cybersecurity, assurance, and the reliability of complex software and hardware systems by building tools and techniques that prove program correctness, detect vulnerabilities, and enable the creation of trustworthy autonomous systems. Their unique value proposition lies in their expertise in applying mathematically rigorous techniques to solve real-world problems, particularly in the defense, aerospace, and intelligence communities, enabling them to build highly secure and resilient systems.

**Technology Focus:**

* Formal Methods:\*\* Galois develops and applies formal methods techniques (e.g., theorem proving, model checking, static analysis) to verify the correctness and security of software and hardware systems. They create customized tools and frameworks for clients to enable rigorous analysis.
* Cryptography & Secure Computing:\*\* Research and development of novel cryptographic algorithms and secure computing technologies such as multi-party computation (MPC) and homomorphic encryption (HE) to protect data and computations in sensitive environments. They aim to make practical and efficient use of advanced cryptographic schemes.
* Trusted Autonomous Systems:\*\* Development of technologies and architectures for building trustworthy autonomous systems, including verifiable control systems, secure perception, and explainable AI. Focus on ensuring safety, reliability, and security in autonomous systems operating in complex and potentially adversarial environments.

**Recent Developments & Traction:**

* DARPA Collaboration:\*\* Continues to secure significant contracts from DARPA for research in areas such as verifiable AI, secure hardware, and formal verification of complex systems. Specific project details vary but consistently demonstrate ongoing involvement with cutting-edge defense research.
* Software Analysis Tools:\*\* Actively developing and deploying software analysis tools targeted toward the secure development lifecycle. Specifically mentioned in recent documentation is improvements to capabilities relating to vulnerability detection.
* Quantum-Resistant Cryptography Research:\*\* Engaged in research initiatives focused on developing and deploying quantum-resistant cryptographic algorithms to protect data against future quantum computing threats.

**Leadership & Team:**

* Rob Wiltbank (CEO):\*\* Seasoned entrepreneur and investor with experience in venture capital, private equity, and strategic consulting. Background in finance and business development.
* Dr. Joe Kiniry (CTO):\*\* A prominent figure in the field of formal methods and trusted computing. Extensive experience in programming language design, software verification, and secure systems development. Prior affiliations include HP Labs.

**Competitive Landscape:**

* SRI International:\*\* SRI International also conducts research in computer science and cybersecurity, particularly for government clients. Galois differentiates itself through its specific focus on formal methods and its expertise in applying mathematically rigorous techniques to solve security and reliability problems.
* Collins Aerospace:\*\* While Collins Aerospace is a larger company, some overlap exists in areas like autonomous systems and secure computing. Galois differentiates itself through its specialized expertise in formal verification and its ability to develop custom solutions for niche applications.

**Sources:**

1. [https://galois.com/](https://galois.com/)

2. [https://www.crunchbase.com/organization/galois](https://www.crunchbase.com/organization/galois)

3. [https://apps.dtic.mil/sti/pdfs/AD1078818.pdf](https://apps.dtic.mil/sti/pdfs/AD1078818.pdf)

4. [https://www.linkedin.com/company/galois-inc/](https://www.linkedin.com/company/galois-inc/) - (Used for Leadership verification and general activity trends)