

Archimedes AI: Proven Accuracy in Predicting Merchant Behavior

Developing Archimedes AI was an 18-month journey of rigorous research, industry expertise, and collaboration. Our team, with deep roots in the payments industry, partnered with experts in data analytics and AI programming to build and refine the v1 algorithm.

Early testing began with anonymized datasets, allowing us to fine-tune the model before moving on to real-world merchant data. Once we achieved promising internal results, we moved to the next phase—validating Archimedes through pilot programs and Proof of Concept (PoC) studies with trusted industry partners.

The Proof of Concept (PoC) / 3rd party validation

To measure Archimedes' accuracy, we structured our PoC with a clear methodology:

- We collected five years of historical merchant data.
- The fifth year was withheld from Archimedes.
- The AI analyzed the first four years to generate insights, including predicting which merchants were likely to churn within six months.
- Once the model produced its predictions, the company compared them against the actual fifth-year outcomes.

The Results

Archimedes consistently demonstrated over 90% accuracy in every PoC, improving with each iteration.

The Impact

Every early adopter that tested Archimedes AI on their merchant portfolios saw highly accurate churn predictions and actionable insights, reinforcing its value in proactive customer retention and revenue optimization. These early adopters became our first customers and references for Archimedes and Arcum.

Archimedes isn't just another AI—it's a proven, data-driven solution designed to help businesses stay ahead of merchant churn with unmatched precision.

For more, please contact info@arcum.ai or visit arcum.ai