The Machine Augmented Analytics Platform (MAAP) demonstrates new ways to combine scalable parallel processing with datacenter-scale information storage and retrieval. Increasing compute performance in the cloud allows for more complicated algorithms such as binary analysis, computer vision, image processing, machine learning, and graph traversal.

This is a full stack research effort, with active projects focused on:

- Optimizing and tuning cloud hardware and software based on cost, performance, and labor overhead;
- Data ingest and storage, query structures, and high-dimensional indexing for specific use cases;
- Integrating GPU’s, in-memory processing, & special purpose hardware into the cloud; and
- Developing new ways for humans to explore and visualize large-scale data.

Program Overview

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Machine Augmented Analytics Platform (MAAP)
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Advanced Computing Architectures
- Data Ingest
- Storage & Processing
- Technology Transfer Planning and Integration

Indexing & Retrieval
- Information Parsing
- Binary Analysis
- High-Dimensional Indexing

Machine Learning Analytics
- Pattern & Trend Analysis
- Correlation (1:1)
- Clustering (Many to Many)