

Led 10-person team devising ingenious solutions to complex problems such as big data, business intelligence, and data analytics. Created partnerships with Cloudera, Datastax, and Ne04J.

- Patented three breakthrough methodologies that generated \$7 million annually.
- Data Partitioning and Indexing (DPI): speeds up calculation and simplifies range-interval queries for data analytics.
- Compressed Data Warehouse (CDW): slashed server space, boosted efficiency, and accelerated querying.
- Automated Online Advertising System (OAS): applied game theory to calculate payments to inventory partners.
- Provided consulting services to C-Level executives for big data strategy, platform selection, reference architecture, ROI modeling, an enterprise data hub, real-time analytics, visualization, and migration to the cloud. Built a development team with combined subject-matter expertise in architecture and optimization for three areas of programmatic advertising:
- Advanced the state-of-the-art patented methodologies and algorithms—for automatic buying and selling of online ad impressions via real-time auctions that occur as fast as a webpage can load.
- Re-architected DMP and DSP platforms for a major ad-tech firm—converted to a real-time, in-memory platform.
- Built prescriptive architecture to run large production clusters for spot-market AWS instances.
- Architected cloud Infrastructure and massive data migration—from an on-premise data center to the public cloud—for the Washington Healthcare System.