Crayon helps clients digitally transform by maximizing the value of Microsoft AI

The Software Experts Crayon

Moving into uncharted territory

DNV GL, a leading shipping and installation certification company, wanted to explore how AI and advanced analytics could improve processes and efficiencies.

Navigating an AI journey

DNV GL turned to Crayon to help it get started on its journey with AI. Crayon created algorithms and frameworks to assist in production and innovation.

Developing a partnership

In two years of working together, DNV GL has more than ten machine learning solutions in production and is working with Crayon to develop a joint AI-based solution.

Based out of Oslo, Norway, Crayon is located in one of the earth's most beautiful places, famed for its majestic fjords and well known for its maritime industry, from its Viking roots to its role today as a powerhouse of international business and commerce. A global software expert, Crayon draws from this rich heritage to help enterprises around the world navigate the complexity of their local, regional, and global IT estates to maximize their value.

As part of the value Crayon brings its clients, the company has forged a deep partnership with Microsoft over the years, becoming an expert in Microsoft software licensing and asset management. This expertise has been recognized through multiple Microsoft Partner of the Year awards across numerous categories, including the top prize in 2019 for Artificial Intelligence (AI) and Machine Learning (ML).

Capitalizing on emerging technologies

Crayon's software expertise enables it to serve as digital transformation partners to their clients. For example, seeing the great potential of the cloud, it built service offerings designed to guide clients end-to-end through making use of the cloud. It established an Intelligent Cloud offering that combines Crayon's expertise in licensing, the cloud, and managed services to simplify clients' cloud use.

Similarly, Crayon saw Artificial Intelligence as another transformational technology for clients. Four years ago, the company charted a course to become a leader in this new territory. Crayon and its leadership quickly realized that it needed to differentiate if it was to become an AI powerhouse. The first step to doing so was to ramp up in-house AI capabilities.

"Crayon has a deep cloud + AI partnership with Microsoft. Through its Azure AI Centers of Excellence, Crayon is helping customers transform their AI aspirations into concrete solutions that deliver measurable business outcomes."

—Gavriella Schuster, CVP, One Commercial Partner, Microsoft

Microsoft

Hiring and training new talent

With demand for data scientists on the rise, Crayon wanted to get smart about how it attracted new AI talent. It devised a recruiting strategy that looked for aptitude over specific AI or data science expertise. The team figured it could teach those with high aptitudes who had expertise in different disciplines outside of computer science. For example, Crayon successfully recruited scientists from CERN to join its burgeoning AI team and trained them on AI and data science principles.

This strategy is paying off: Crayon's AI team has grown to over 50 data scientists, data engineers, and AI advisors. This group has grown to function as Crayon's AI Center of Excellence in Oslo. The team has taken a leadership role in building a data science and ML community locally. They founded the Machine Learning Norway meet-up, as an example. They also have a leading role in the city's Oslo.AI program, which joins AI experts, business leaders, and city and government officials to explore the practical or applied opportunities for AI.

Pursing applied AI

Delivering practical applications of AI is at the core of Crayon's vision, and so is providing training and mentorship to its customers and partners. Building AI solutions for AI's sake is not a welcome approach. Crayon works closely with the leadership of its clients to focus on real business applications, as they guide them in their AI journey. Crayon starts by helping clients establish their vision, strategies, and desired business outcomes. From there, Crayon guides each client through a structured, multi-step engagement, creating time for experimentation and implementation

of the solution, as well as supporting the required organizational change adoption to utilize the new AI solution best.

AI deepens Crayon's partnership with Microsoft

As Crayon's AI ambitions and success grew, so did its relationship with Microsoft. Both organizations have aligned views on the ethical and practical use of AI in business and society. There are strong partnerships and collaborations amongst the global Crayon and Microsoft client teams to deliver tangible business outcomes and value to joint customers.

When it comes to Crayon's use of Microsoft's AI platform, it continues to grow and rely on its advanced capabilities. Crayon prefers Microsoft's advanced Machine Learning toolset, giving their developers and data scientists the greatest flexibility to create new solutions. Crayon wanted more from Microsoft's toolset and provided feedback; Microsoft listened and committed to making progress on its ML tooling capabilities.

"We have a strong and committed relationship with Microsoft," said Lutdal. They've proven both flexible and an open-minded partner when it comes to shaping their AI platform to meet our needs."

Microsoft, seeing Crayon's commitment to its AI platform and expertise in training and mentorship, recently chose Crayon to be its international trainer of partners wanting to build AI practices, including training large global advisory firms on advanced AI techniques.

■■ Microsoft

Crayon customer DNV GL accelerates processes with AI

Crayon is actively applying its AI and Microsoft ML expertise with its client base, which includes DNV GL, the world's leading shipping and installation certification and classification company and a recognized advisor for the maritime industry. DNV GL provides technical expertise and a surveyor network offering local service from 350 offices in more than 100 countries. DNV GL was interested in exploring how AI and the use of advanced analytics could improve business processes and enable its people to be more efficient. A lot of its work is technical and labor intensive – often having to search 10,000+ technical documents to find potential matches. If some of this tedious work could be automated, DNV GL's expert staff could spend more time working with its customers.

DNV GL turned to Crayon to help get started on its journey with AI. They began with very small steps, initial experimenting, small use-cases, creating business value, and expanding on to AI-based initiatives. Over time, Crayon's AI resources and DNV GL's domain experts worked closely together, even colocation of these teams in one office.

One early project was tackling a regular challenge to DNV GL: Determine how long an inspection of a ship will take. There are many variables to ship inspection, including the age of the ship, where it is located, and the scope of work required during the inspection. Crayon, using Microsoft's ML toolset, created an ML algorithm to estimate the inspection time. Over time, this algorithm could accurately predict inspection times and went into production. The next experiment was to explore how ML can streamline matching technical documents. Crayon created an algorithm to search for and match technical documentation across tens of thousands of documents, making accessible 150 years' worth of history to engineers. Crayon developed a process framework for DNV GL to use when exploring AI-based innovation ideas, creating a proven, and repeatable approach to their AI journey.

In two years of collaborating with Crayon on AI initiatives, DNV GL has more than ten ML solutions in production, and today is working with Crayon on developing a joint AI-based software solution. It is a win-win opportunity for both organizations as they now have a solution that can be taken to market and monetized.

Expanding a thriving AI practice

For Crayon and its clients like DNV GL, the Microsoft AI platform provides a rich toolset that accelerates experimentation. As Crayon looks ahead, its ambition is to use its Oslo AI Center as the blueprint for setting up additional Centers of Excellence in other regions around the world, in countries like the US, Austria, the United Arab Emirates, and others, and form a global-wide AI practice at the company. The new AI communities will enable Crayon to deepen the impact and value it brings to clients with AI, and further extend its leadership as a partner helping companies navigate their digital transformations. With the right people, knowledge, and experience in place, as well as its growing partnership with Microsoft, the future looks bright for Crayon and its clients.

"Through our Center of Excellence, Crayon teams are driving the machine learning (ML) and data science scene in Oslo. Our city is fast becoming the place where the best data scientists want to come and work ."

— Trond Lutdal, VP AI and ML , Crayon

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