

Upskilling for Data Science and AI in the Automotive Industry

These days, it's hard to escape the chatter about partially or fully autonomous vehicles powered by artificial intelligence (AI). Skeptics and proponents alike have strong opinions on the pros, cons, and future of major automotive innovations.



How AI is Transforming the Automotive Industry



1 in 10
Vehicles globally will be self-driving by 2030

Source: Statista

Partially/Fully Autonomous Vehicles

While testing, infrastructure, and legislation mean a completely driverless future is likely decades away, lower levels of self-driving technology (like lane-assist and self-parking) are already widespread.

\$325.9 billion

Expected global market of driverless cars by end of 2030

Source: Renub Research

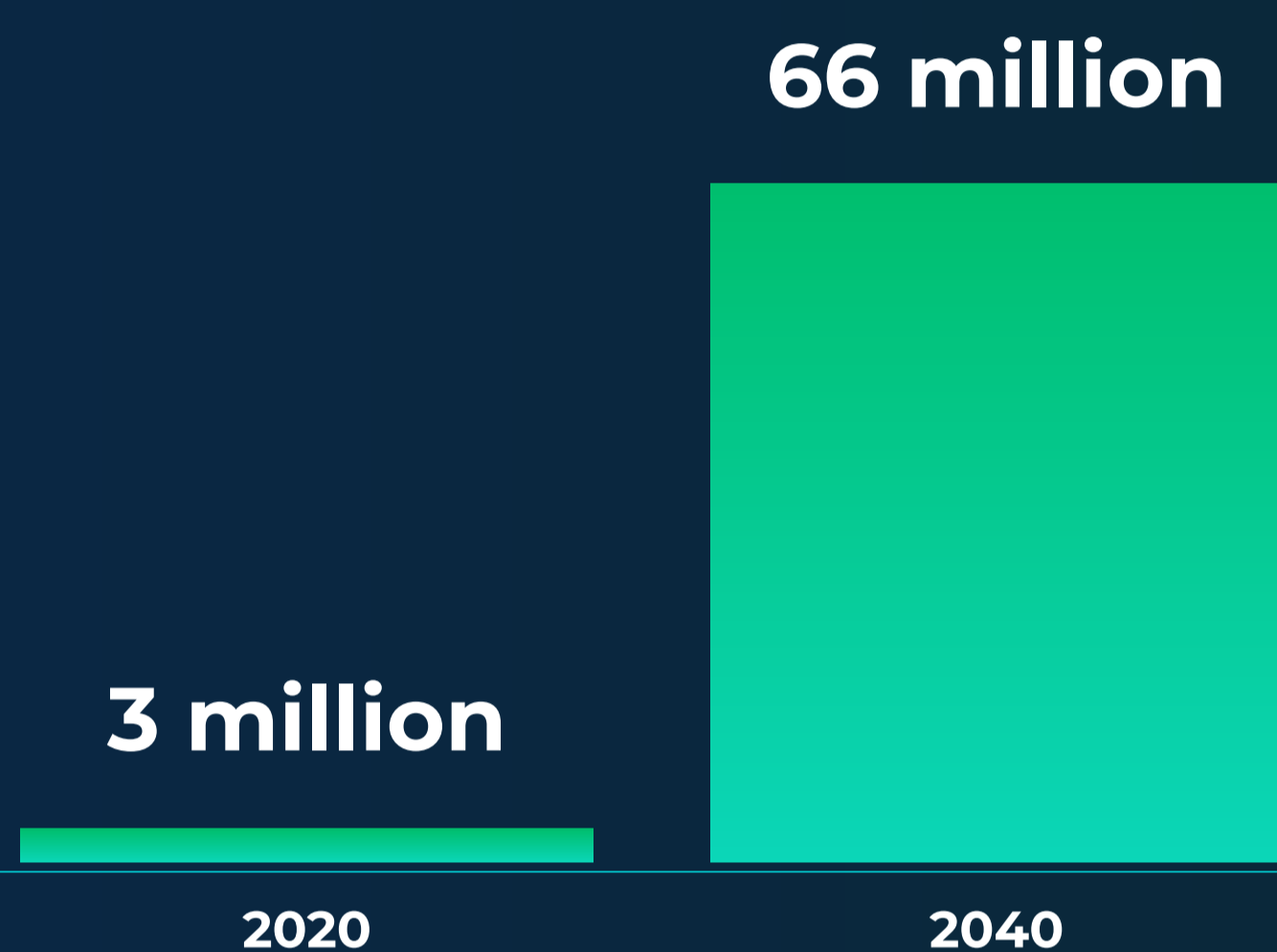


Electric and Low-Emission Vehicles

With machine learning models that can predict how batteries will respond under different conditions, engineers are iterating on fast-charging technology much more rapidly.

BloombergNEF's Economic Transition Scenario projects that passenger EV sales will rise from 3 million in 2020 to 66 million in 2040.

Projected Increase in Electric Vehicle Sales (In Number of Cars Sold)



Manufacturing Equipment

New AI applications being used on the manufacturing floor are revolutionizing how cars are produced and can prevent costly equipment breakdowns.



Quality Control

AI can identify defects up to 90% more effectively than humans and can identify components and cars that don't meet brand standards.



Vehicle Design and Testing

AI is used to generate models that perfectly mirror every aspect of vehicle design and test the vehicle under realistic, dynamic scenarios long before it's built.



Lending

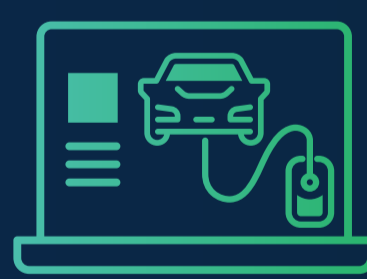
AI can help auto lenders improve credit quality and profitability as well as expedite workflows for assessing risks, underwriting applications, detecting fraud, and optimizing loan collections.

Why Data Skills Are Needed in the Automotive Industry



Managing Supply Chain Logistics

Automotive companies can predict supply issues due to everything from local weather events to geopolitical upsets like COVID-19.



Recall Readiness and Management

Manufacturers can identify issues with cars sooner and limit the financial liabilities of a recall, as well as identify the root cause of an issue and isolate it in the supply chain.



Delivering Cars Consumers Want

Manufacturers can identify in-demand features (for example, voice-assisted controls) and assess what price points would make them viable to customers.



Highly Targeted Marketing Campaigns

Car companies can analyze their existing customers to identify characteristics that predict a purchase and use data-driven insights to personalize campaigns.

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Let's Talk

