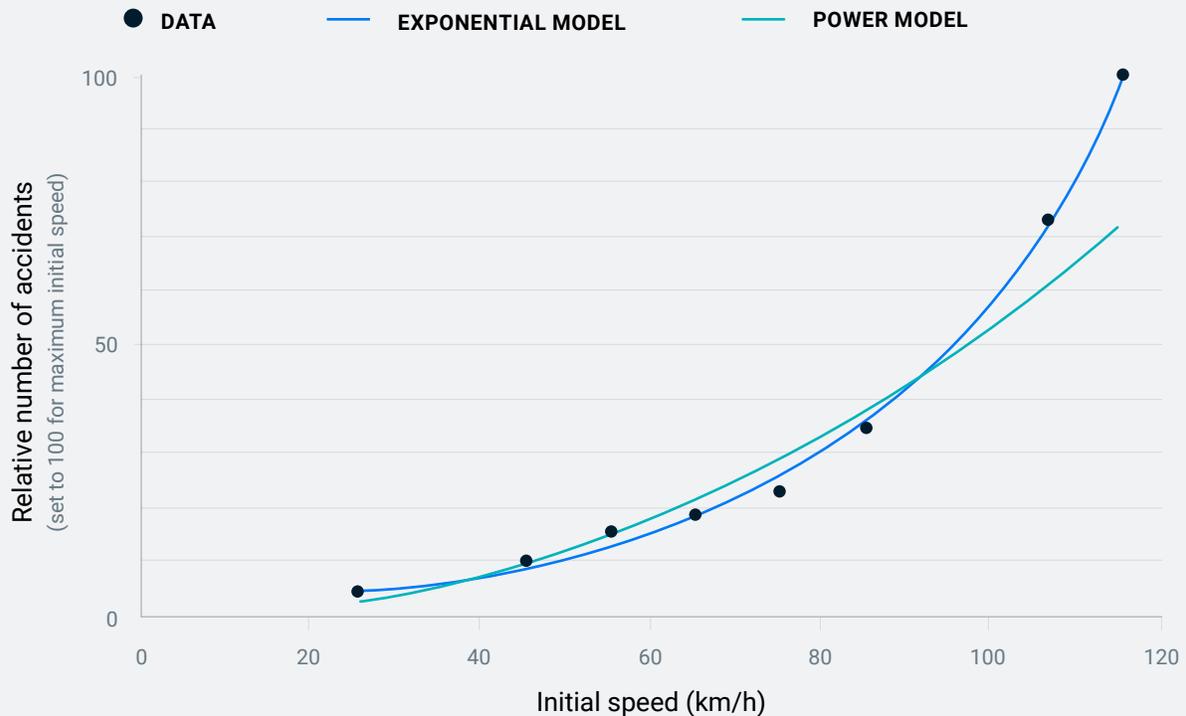**arity**®

⬤ Life360

How Crash Detection by Arity has helped Life360 improve driving program precision and protect their customers since 2019

As the world's leading family safety app, Life360 provides real-time support that keeps families safe at home, on the go, and on the road — with driver reports, roadside assistance, and crash detection features powered by Arity.

WHAT IS CRASH DETECTION?

Arity's advanced sensor technology automatically detects when a Life360 user is in a car accident and alerts its safety program to notify the driver and passengers' emergency contacts, dispatch first responders, or start the process of generating an insurance claim.

The challenge

With over 40,000 fatalities per year due to motor vehicle crashes in the U.S., Life360 identified an urgent need to extend their safety features to the road. After an initial launch of a crash detection feature, Life360 recognized a need to improve accuracy and integrate technology that enabled dynamic program development.

To continue growing their road safety program, Life360 needed a partner that could:

: Accurately identify true crashes

: Ingest and generate insights from billions of data points

: Collaborate on new learnings to provide timely program updates

: Establish thought leadership to drive program innovation

Deciding factor

Attracted by a platform that captures over 1 billion miles of driving data each day, expertise to analyze billions of mobile data points, and a hunger for innovation and experimentation, Life360 decided Arity could improve accuracy and drive future program development.

The approach

Seeking more than industry expertise and a shared commitment to road safety, Life360 recognized Crash Detection by Arity could also add program value with an algorithm informed by:

Trillions of miles of driving data
Arity data scientists analyzed rich claims data to develop an algorithm that accurately detects crashes.

Industry relationships
Arity leveraged its industry network to enrich data sets with IIHS and NHTSA crash lab test results.
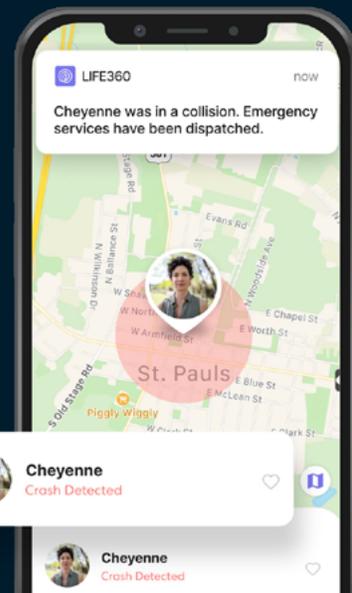
Advanced research
Arity experts enabled accurate accident detection by evaluating car speed and force impact to determine common crash speeds.

"Life360 saved my life....I have crash detection on, and it truly works. It let my husband know I was in a car accident and sent him my location."

**CHEYENNE AND MICHAEL,
LIFE360 MEMBERS**

LIFE360   now
Cheyenne was in a collision. Emergency services have been dispatched.

Cheyenne
Crash Detected

Cheyenne
Crash Detected

The solution: Crash Detection

Crash Detection by Arity substantially increased Life360's program accuracy and enabled learnings to continually expand detection capabilities.

Crash Detection enriched Life360's existing program by:

: Exposing and reducing missing crash types
: Identifying GPS and acceleration anomalies that occur in high-impact activities
: Accounting for discrepancies between iOS and Android sensor detection
: Establishing a high-fidelity labeled data collection pipeline to provide data that retrains algorithm subcomponents for program changes

The results

23,000

average monthly high confidence crashes detected

2,900

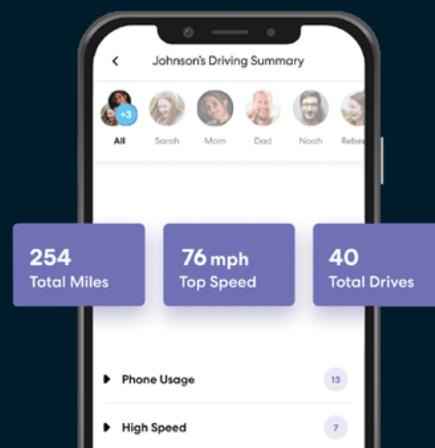average monthly emergency vehicles dispatched

118,000

labeled true positives since 2019

Arity continually refines its algorithm precision to reduce false crash detection, most recently improving detection recall by 50%.

With ongoing improvements to Crash Detection, Life360 and Arity continue to grow the partnership with a shared mission to keep people safe on the road.

"By embracing experimentation and prioritizing accuracy, Arity has added value to our program even beyond our increased ability to keep families safe on the road."
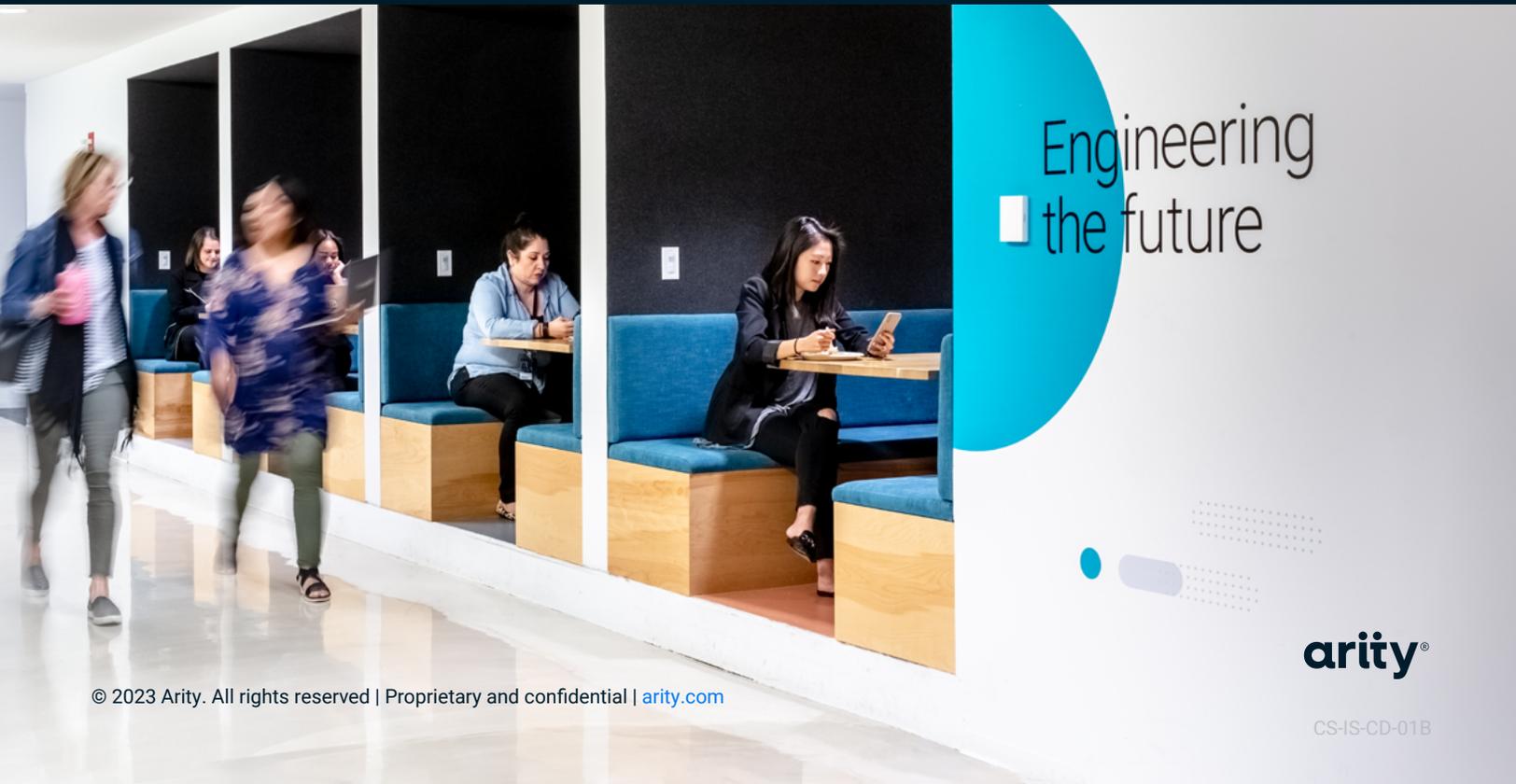
LIFE360 EMPLOYEE

< Johnson's Driving Summary

All Sarah Mom Dad Noah Rebe

254 Total Miles

76 mph Top Speed

40 Total Drives

▶ Phone Usage   13

▶ High Speed   7

Contact us

To learn more about Arity Crash Detection and mobility solutions, please contact sales@arity.com.

About Arity

Arity is a mobility data and analytics company that provides data-driven solutions to companies invested in transportation, enabling them to deliver mobility services that are smarter, safer, and more economical. Arity collects and analyzes trillions of miles of driving data to create a greater understanding of how people move. With the world's largest driving dataset tied to insurance claims collected through mobile devices, in-car devices, and vehicles themselves, Arity derives unique insights that help insurers, developers, marketers, and communities understand and predict driving behavior at scale. Arity was founded by The Allstate Corporation in 2016.

Engineering the future

arity®

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