iMerit

CASE STUDY

95%
ANNOTATION ACCURACY

CREATING HD MAPS FOR 10 CITIES

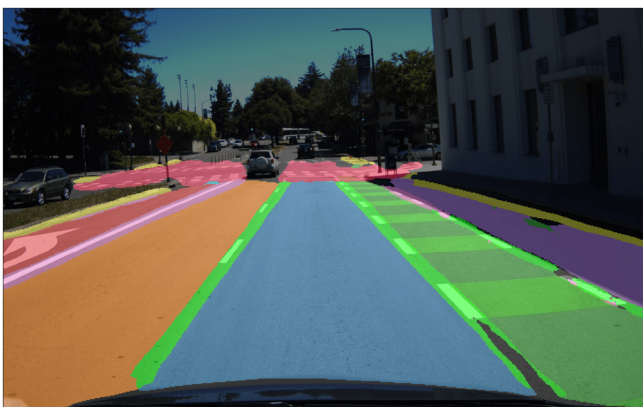*iMerit provided a scalable HD mapping solution for leading self-driving car company.*

THE CHALLENGE

After setting their sights on achieving level four autonomy, a hallmark of autonomous driving technology, this leading self-driving car company needed high definition maps of major US cities to release pilots for their autonomous vehicle rollout program. Initially planning to roll out their autonomous fleet across three cities, this company had ambitions and agreements to expand to 10 cities within the United States.

> "
> *We needed a partner who could annotate urban landscapes scalably and meticulously.*
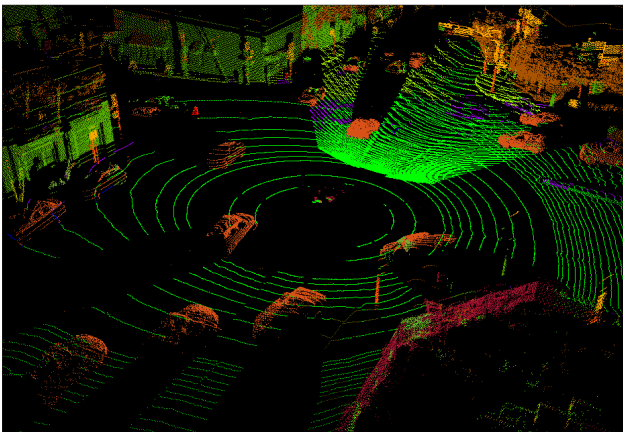>
> - Head of AI Solutions

To meet this critical project, this company needed a scalable solution from a data services provider that could annotate entire cityscapes. This meant street markings, curbs, pedestrian pathways, traffic lights, traffic signs, road boundaries, pullovers, restricted zones, assigned speed limits, and the precise positioning of vehicles in their environment needed to be fully annotated to ensure self-driving cars would interpret and respond as a human driver would. To do this scalably and efficiently, this company came to iMerit for a solution.

THE SOLUTION

Recognizing the critical role of precise mapping and annotation in this endeavor, iMerit began by meticulously annotating and curating high-definition mappings. Moreover, iMerit expertise extends to annotating 3D cuboids, crucial for enhancing spatial awareness and navigation capabilities.

In our initial phase of collaboration, our dedicated team worked closely with the customer to annotate the mapping data for a single city, achieving a commendable accuracy level of 95%. Responding to the customer's escalating demands for expanded annotation work, iMerit swiftly scaled and trained annotation teams from 250 to 1600 individuals. This expansion not only involved rigorous training in iMerit's LiDAR workflows but also a concerted effort to meet the customer's exacting standards.

> **"**
> *iMerit's precision and scalability surpassed our expectations, empowering us to confidently navigate the complexities of autonomous driving.*
>
> *- Project Manager*

With this larger, well-trained workforce and growing experience among team leads, iMerit fostered a notable improvement in efficiency and accuracy that accelerated project timelines. As demand surged, iMerit further expanded teams to encompass 1800 individuals during peak periods of supply.

THE RESULT

iMerit successfully annotated nine square mile tiles with an accuracy rate of 95%. This high level of precision ensured that the self-driving vehicles could accurately interpret and respond to the environment, enhancing safety and reliability. The ability to scale from 250 to 1600 annotators, and further to 1800 during peak demand, demonstrated iMerit's capacity to meet the growing needs of the project.

BOTTOM LINE IMPACT

95%
Annotation Accuracy

61%
Time-Per-Task Improvement

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