LIONBRIDGE

Improving search for one of Southeast Asia's fastest-growing unicorns

Lionbridge classified over 200,000 search queries for Traveloka, a leading online travel company. This data was used to build a search engine capable of returning results in multiple product categories.

THE CHALLENGE

Although it's often taken for granted by potential customers, the search function of a website is of critical importance. An effective search engine directs users quickly and smoothly to the most relevant products for their query. As a result, search accuracy can have a huge impact on customer retention and sales volume.

Traveloka is a Southeast Asian online travel company that provides a one-stop platform for a range of ticketing services, including flights, accommodation, and attractions. With an expanding list of 19 core product offerings, improving search capabilities was key to their continued growth across multiple platforms. To do this, Traveloka aimed to build a universal search function, which would allow customers to browse the full range of their products from a single search bar.

To complete this complex machine learning project, they required a data annotation partner who could classify thousands of search queries according to an extensive system of product and sub-product categories. This partner also needed to have specialist experience of annotating similar text strings with their linguistic meaning.

THE SOLUTION

Our ability to perform multiple types of data annotation in both English and Indonesian was instrumental in Traveloka's decision to partner with us.

> *Lionbridge initially stood out because of their capabilities in the regional language space, but we were also impressed by their flexible approach to data annotation. It was clear from early on that they were committed to providing us with a high level of support and eager to align with our project requirements.*

Dr Deb Goswami, **Data Science Lead at Traveloka**

- **Guideline Preparation**
  Working closely with our client, we developed extensive guidelines for our contributors in both English and Bahasa Indonesian. This included the creation of a gold standard for the project.
- **Text Classification**
  We carefully selected, tested, and awarded qualifications to a small group from our crowd of one million qualified contributors. This extensively assessed group of 50 native speakers of both languages annotated the client's data using our custom text classification workbench.

- **Quality Evaluation**
  We thoroughly reviewed our contributor output to ensure that it met Traveloka's high standards for consistency and quality. We also developed a script to convert the classification output into IOB2 format.

THE RESULTS

200,000+ Text Strings

50+ Professional Contributors

6,000+ Hours of Work Completed

Using data annotated by Lionbridge, Traveloka have launched a search engine that allows users to effortlessly search 76 unique product combinations with a single click. With further releases still to come, this machine learning algorithm will only improve ease-of-use for both their web and app users. You can try out Traveloka's new search function by downloading the app here.

> *From our previous experience, we know how difficult it is to build out effective data annotation teams from scratch. We were extremely pleased with Lionbridge's ability to scale without compromising on quality or speed, particularly when it came to acting on our feedback. Our partnership has produced some great results and we're looking forward to more successful releases in the near future.* — **Dr Deb Goswami**

LIONBRIDGE AT A GLANCE

- 300+ languages and dialects
- 1 million global contributors
- 20+ years of experience in providing human-annotated training data

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