Building Crocus' First Plant Image Recognition System on GCP

With our expertise in Deep Learning and Computer Vision to develop and deploy an image classification system on Google Cloud Platform, which identifies over 5,000 plants in under 30 seconds for Crocus' gardening app, Iris.

The challenge

Crocus required an image recognition system that was superior in terms of breadth, depth and timing to classify plant species. Without an in-house data science team, they needed support to: 1) Build and deploy an Image Classification model that is easy-to-maintain and scalable 2) Identify the minimum number of images 3) Deploy the model into an automated pipeline to allow for minimum maintenance.

The solution

After an initial data quality assessment, Datatonic conducted a model framework review and completed model prototyping, experimenting with algorithms, hyper-parameters and state-of-the-art transfer learning models, and evaluating scaling performance. Crucially, we developed an operational architecture and processes for retraining and serving to ensure the models were scalable and performant.

The results

The image recognition system built by Datatonic underlies Crocus' new gardening app, Iris, which aims to make gardening more enjoyable and easier for people. The solution is easy to maintain and scale across their 5,000 plant range, identifies plant species in under 30 seconds, and identifies the minimum number of images per category required for accurate prediction.

> " By being able to identify plants, and have associated care tips, we hope to give people the confidence to grow. As the only app on the market that combines plant identification with our nursery knowledge and the opportunity to get that plant delivered to their door, we hope to make gardening as easy and fun for people as possible. "
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> Mayank Shukla, Director of Ecommerce, Crocus

crocus

About CROCUS.CO.UK LIMITED

Crocus is a leading UK e-commerce brand that prides itself in offering the largest range of plants to the British consumer. They grow 5,000+ different plant varieties in their nurseries at any given time of the year, offering over 10 times the range compared to the average garden retailer.

Industry: Retail & Wholesale

Primary project location: United Kingdom

+datatonic

About DATATONIC LTD.

Datatonic helps businesses build solid cloud foundations and accelerate high-impact machine learning & analytics use-cases.

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