Deep Vision - The Hub

Team Members and Roles

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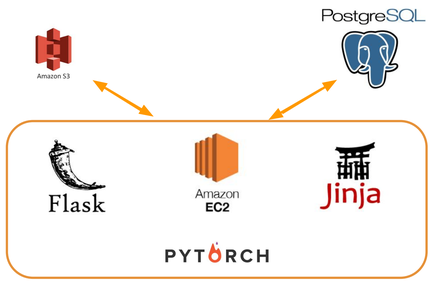
Technologies Used

The team used a Python-based stack that uses Amazon Web Services (AWS). The Flask application runs on an AWS EC2 instance using Jinja2 to render the website dynamically.



Users' uploaded images are saved to S3 and metadata about users and projects are stored in an AWS Relational Database Service (RDS) PostgreSQL database. From there, users' custom PyTorch-based models save and retrieve the images in S3 for training and prediction.

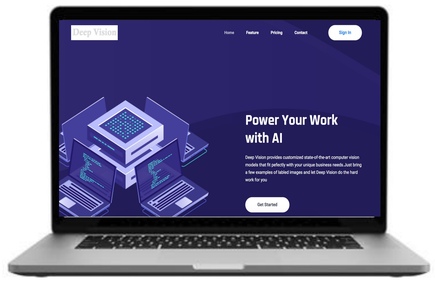
Current Product

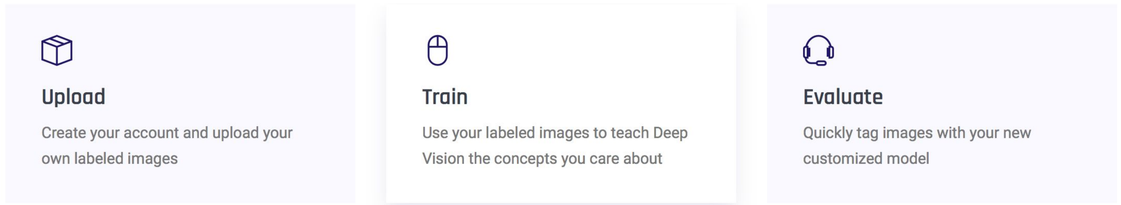
Deep Vision is a suite of deep learning products that enables companies and individuals with limited machine learning expertise to train high-quality models specific to their business needs. We aim to bring AI to unattended sectors around the world.

The Hub: A space where people can create, share and collaborate with-in projects around the world without a need of prior technical knowledge (Basic/Premium plan).

Auto-DL: Basic service to train model without the supervision of a professional. Suitable for those projects without a special emphasis in performance (Basic/Premium plan).

Qualified professionals: A service where clients can hire the service of professionals to improve the performance of their models (Basic/Premium plan).





Deep Vision provides a simple graphical user interface (GUI) for you to train, evaluate, and deploy deep learning models based on your own data. Just bring a few examples of labeled images and let Deep Vision do the hard work for you. The users only need to follow the step-by-step guidance, Deep Vision provide and a customized model is trained and will be ready shortly without wasting a huge amount of money or time. Deep Vision also provide different plans to cater your needs, varying from storage, collaboration and support services.

Future Extensions

We would like to further build Deep Vision as a versatile enterprise deep learning platform with a focus on collaboration and user experience. With that motto, we identify the following functionalities as the future development:

Add more project visibility: *to enable more collaboration between users so they can share and find projects that align with their problems and interests by allowing users to see others projects*

Empower users with a model monitoring dashboard: to provide real-time feedback on how models perform as well as suggest practical actions to improve their models.

Support a wider range of tasks and data types: including object detection, image segmentation, object tracking, action identification, etc. using images and videos.

Increase accessibility to the platform: develop APIs and mobile versions of the app to provide users with more options to utilize and integrate Deep Vision into their daily work

Market Analysis

Target Users

The target market of our service includes small businesses or individuals that have Internet connections and desire to use machine learning to augment their business or daily lives but lack the funds or the technical expertise of a data scientist.

Marketing Strategy

Product: A platform that allows users to collaborate, customize and utilize Deep Learning techniques by simply clicking on an intuitive, self-explanatory interface that speaks our customers' language - focusing on their business problems - rather than technical terms.

Accessibility: In the MVP version of our product, we have built a web application for our product. In the near future, we aim to finish developing the mobile app so that our customers can upload, label their data, initiate model training and use prediction from their phones.

Price: Our strategy is to offer our product at an affordable price. A lower price point would reduce the risk for users, thus making it easier for them to try and adapt our product as their entry point to deep learning.

Promotion: Our communication would be mainly educational at first to showcase typical use cases of computer vision in common business problems. To trigger the demand, we will host workshops regarding deep learning for small businesses. The experts in our team would brainstorm and come up with ideas of how and in what aspect of their business that machine learning can be applied to help grow their businesses.

Subscription Plans

Two plans:

Basic: Access to uploading data up to 10GB per project, auto-trained models with basic customization, collaborating with a maximum of 5 users per project.

Premium: Basic plan + unlimited storage and collaborators in projects, access to specialists to review & improve the model.

Email
Website