


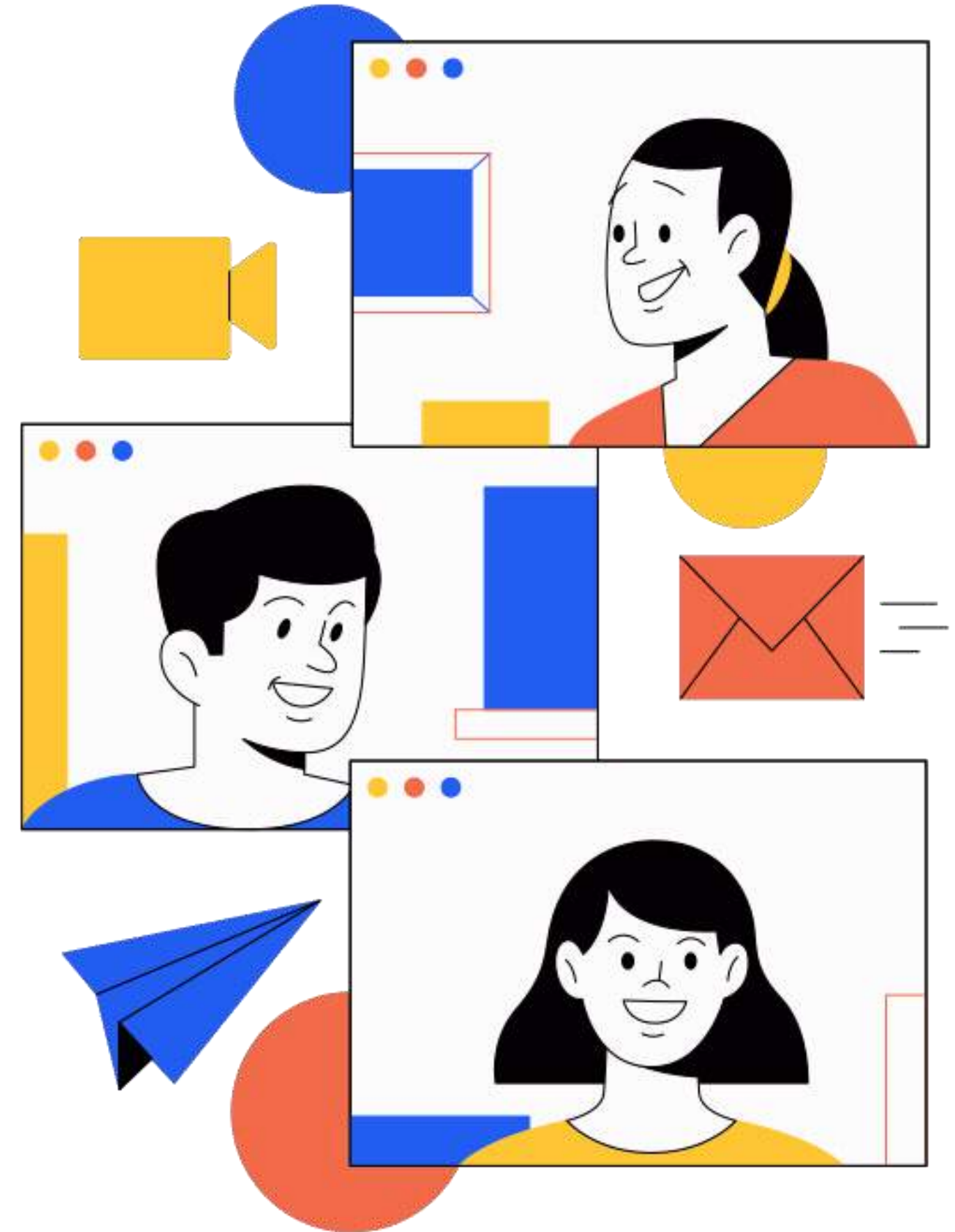


# EXPLORING THE ML BEHIND INSTAGRAM



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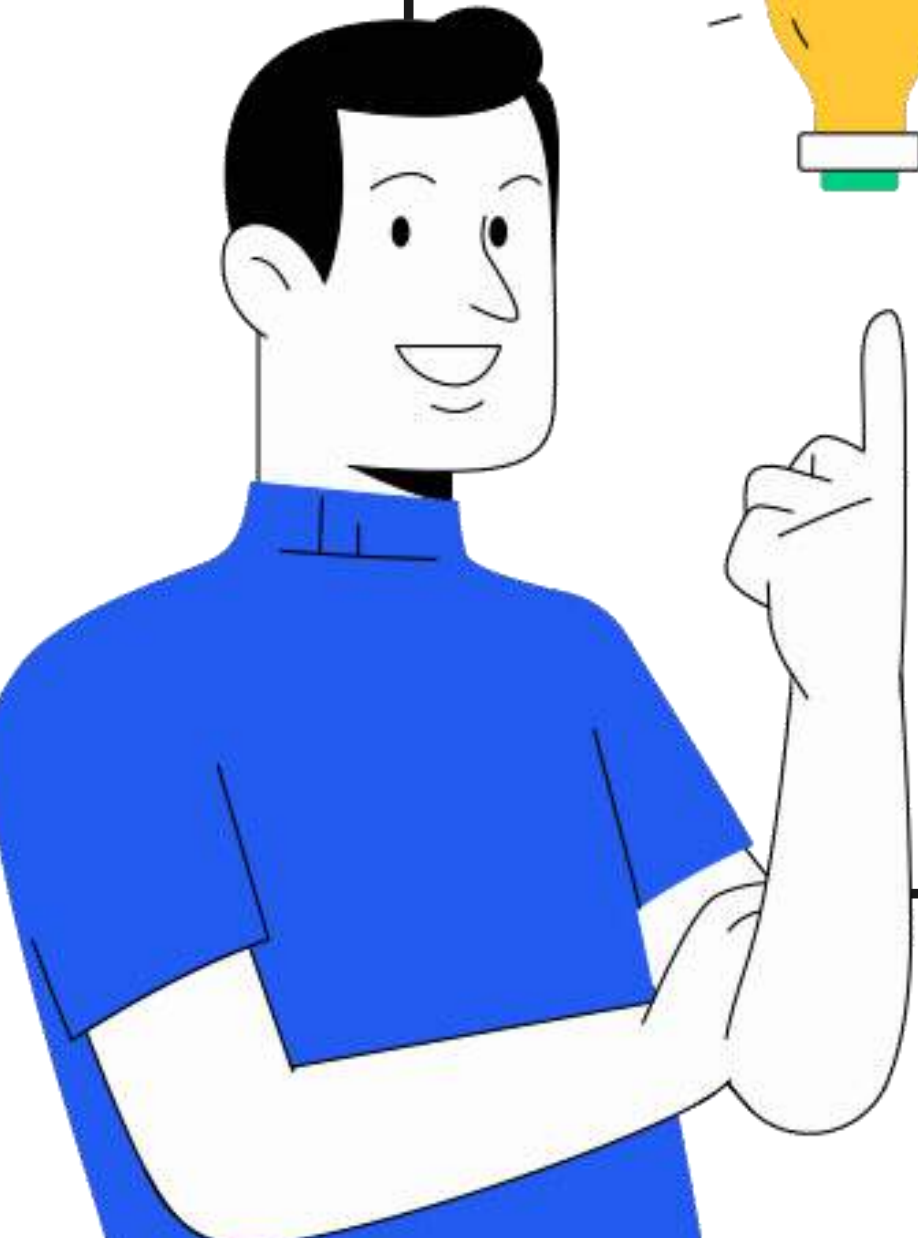
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# INTRODUCTION



Instagram, a popular social media platform, uses machine learning algorithms in various ways to enhance user experience, improve content recommendations, and deliver targeted ads.





brock\_lee

FOLLOW

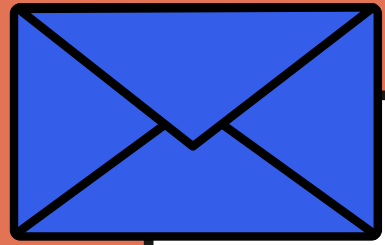


# WHY ML USED IN INSTAGRAM?



143 likes

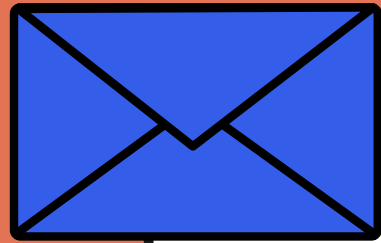
Spending everyday with awesomeness! #fun



# WHY ML?



The "why" behind using these machine learning algorithms is to create a more engaging and personalized user experience while maintaining a safe and respectful environment. By analyzing vast amounts of data and applying various algorithms, Instagram aims to keep users on the platform, encourage interaction, and offer relevant content and advertisements.



## INSTAGRAM FEATURE'S WHICH USES ML



- **Image Recognition**
- **Content Recommendation**
- **Search and Discovery**
- **Content Moderation**
- **Hashtag and Caption Analysis**
- **Ad Targeting**
- **User Engagement Predictions**
- **User Safety**
- **Language Translation**
- **Stories and Reels Ranking**

# HOW ML IS USED IN INSTA?



## Logistic Regression

- Applications : Ad targeting. Logistic regression can be used to predict the likelihood of a user clicking on a specific ad, allowing Instagram to display ads that are more likely to be engaging for the user.

## Support Vector Machines (SVM)

- Application: User safety and content moderation. SVMs can be used to classify content as abusive or non-abusive, helping in the detection and removal of harmful content.



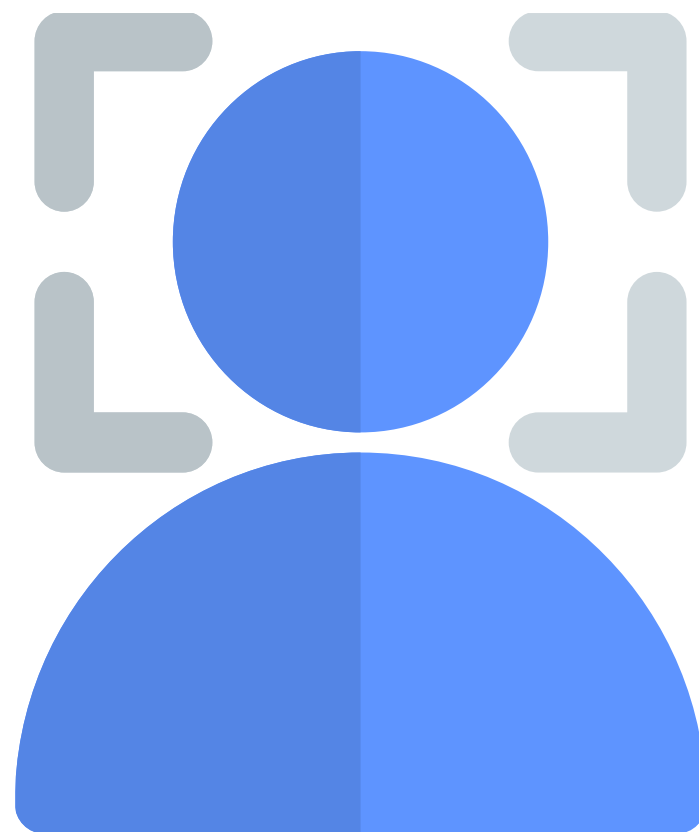
## Naive Bayes

- Application: Sentiment analysis. Naive Bayes can be used to determine the sentiment of comments and captions, helping to understand how users are reacting to content.

## K-Nearest Neighbors (K-NN)

- Application: Content recommendations. K-NN can be used to find users with similar preferences and recommend content that those similar users have engaged with.



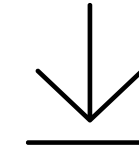


# IMAGE RECOGNITION



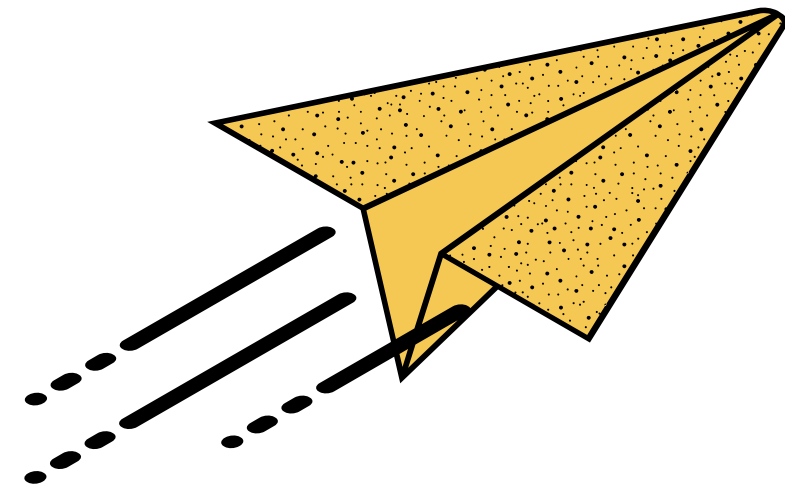
Instagram employs Convolutional Neural Networks (CNNs) for image recognition. When you upload a photo, Instagram's algorithms analyze it to identify objects, people, and scenes. This information is used to improve search, content discovery, and for accessibility features like automatic image descriptions.

# FOR MORE DETAILS



[https://docs.google.com/document/d/1CLJXH8-5MDz9YYFe\\_pqi2SdhUgejXKE0/edit?usp=drivesdk&oid=109102401187315153554&rtpof=true&sd=true](https://docs.google.com/document/d/1CLJXH8-5MDz9YYFe_pqi2SdhUgejXKE0/edit?usp=drivesdk&oid=109102401187315153554&rtpof=true&sd=true)





**THANK  
YOU!**

