fashion.pulse

Denis Lochmelis, Gleb Solovev

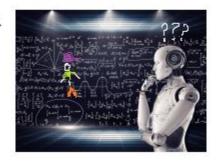
Key idea: measure your fashion



2



3.



4



Collect coolest dataset



- Build & train model
- Implement & deploy app
- Deliver as beautiful project

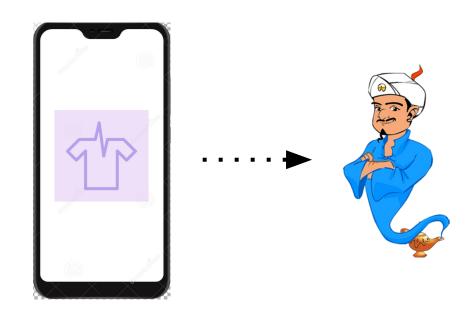




- Collect coolest dataset
- Build & train model
- Implement & deploy app
- Deliver as beautiful project



- Collect coolest dataset
- Build & train model
- Implement & deploy app
- Deliver as beautiful project



- Collect coolest dataset
- Build & train model
- Implement & deploy app
- Deliver as beautiful project

Collecting dataset: initial ideas

Desired data: photos of people with labeled styles [formal, punk, vintage, ...]

- No already existing dataset
- Only labeling clothes items

Collecting dataset: initial ideas

Desired data: photos of people with labeled styles

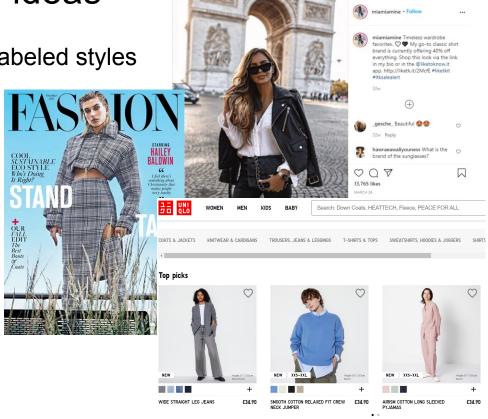
[formal, punk, vintage, ...]

No already existing dataset

Only labeling clothes items

Solutions

- Fashion thematic magazines
- Fashion bloggers / influencers
- Online clothing shops



Collecting dataset: initial ideas

Desired data: photos of people with labeled styles

[formal, punk, vintage, ...]

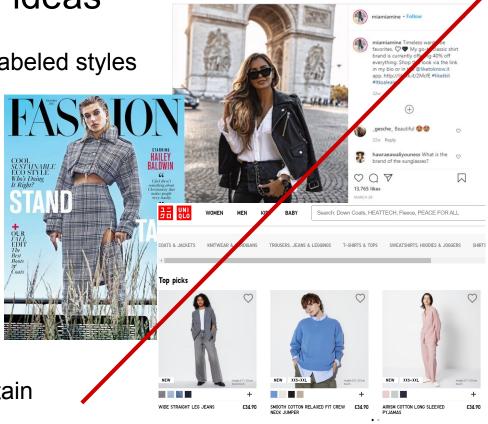
No already existing dataset

Only labeling clothes items

Solutions

- Fashion thematic magazines
- Fashion bloggers / influencers
- Online clothing shops

Common problem: super hard to obtain



Collecting dataset: Pinterest

- Stylish & fashionable by definition
 - Fashion/aesthetic-oriented platform
- Labeled by keywords & tags
- Huge community
 - Relevance
 - Wide choice of images



Collecting dataset: Pinterest



Q gothic fashion outfit women



Регистрация



Gothic fashion. For many men and women that enjoy sporting gothic style fashion...



insta: @butter.on.a.poptart69





Women Men Gothic. Harness...

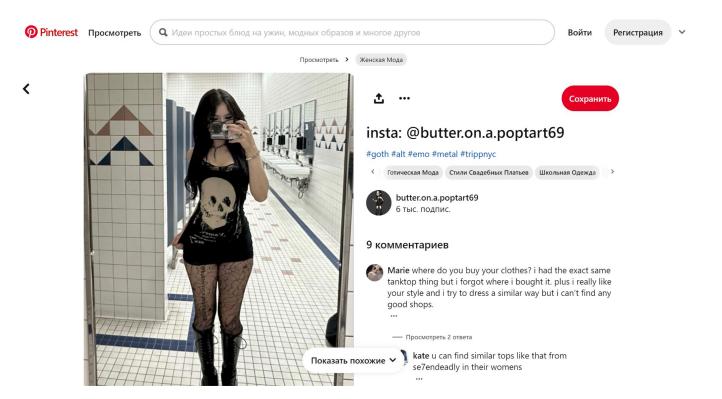




goth corset outfit goth corset outfit #gothic #goth #alternative #gothgirl #punk #fashion...



Collecting dataset: Pinterest



Collecting dataset: scrapping Pinterest

Revolutionary idea: **Pinterest boards ***

- Made by real & various people: less bias, more expertise
- Several 400-600 pins boards = 1 style dataset
 - Pick the best by hand

Download board images

- Official Pinterest API ⊕ ♥ & existing scrappers □ ♥
- Our implementation
 - o requests, soap, Selenium vs pagination
 - prompt engineering: keywords, synonyms (glam ↔ runway), specifics (fall + vintage)





Gothic Outfits



507 пинов 3 года



Владелец коллекции: Welcome To The Grave

Поделиться



Черное Дамское Белье Корсеты



Костюмы Персонажей Повседнев >

Toxic Tears: Photo Tovic Tears - Photo



Альтернативные Девушки Альтерн >



Анубис Черная Одежда Стиль

Фильм Прекрасные Создания Крас



Темная Мода Городская Мода

人形。 nebulablood



Дита Фон Тиз Туфли Стильное В > Эмо Стиль Модные Наряды Же >









Худые Девушки Готические Девуш >

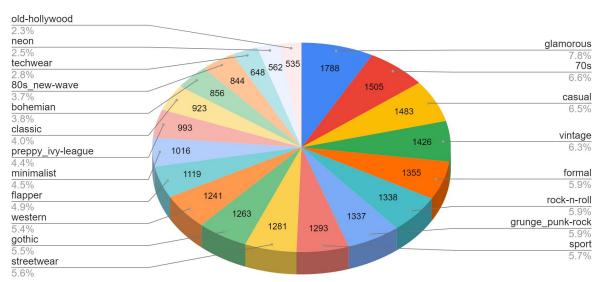


Collecting dataset: img_fashion_styles

Size: 22.806 images

Men/women ~ 50/50





Collecting dataset: img_fashion_styles









Training the model

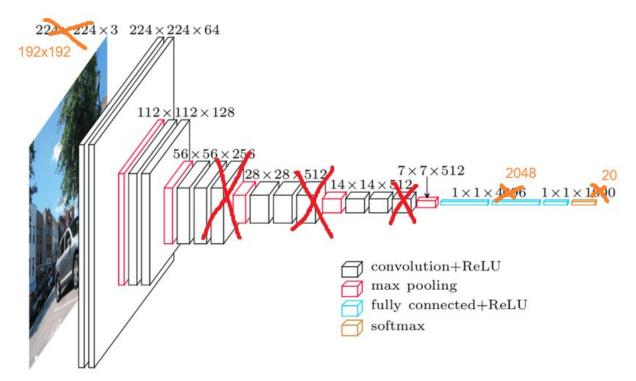
- Hardest part for us
- Start with small sample projects
 - MNIST, CelebA
- Then use something well-known & simple :D



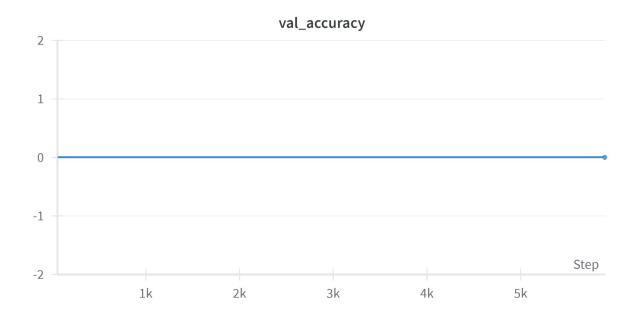
Training the model: architecture

- VGG-based
- Multilabel?
 - Or multiclass?
 - Let's try both...

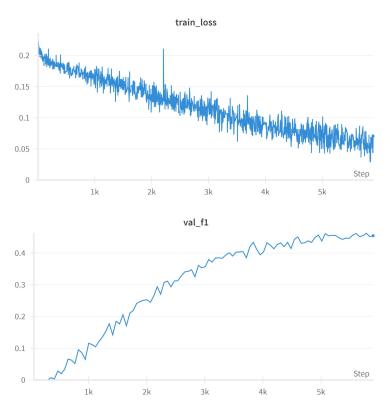


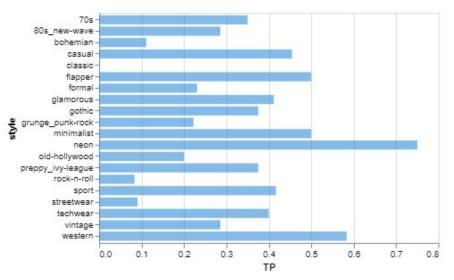


Training the model: results?



Training the model: results



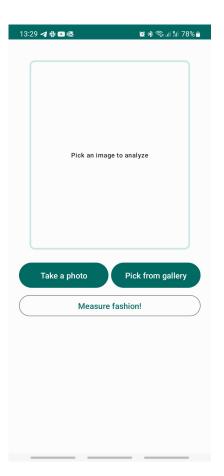


- Test F1 = 0.42
- Accuracy is broken :)
- TN is 0.99 for all classes (duh)

Making the app

- Telegram bot: ew
- Android app:

 - Already know a bit



Deploying the model

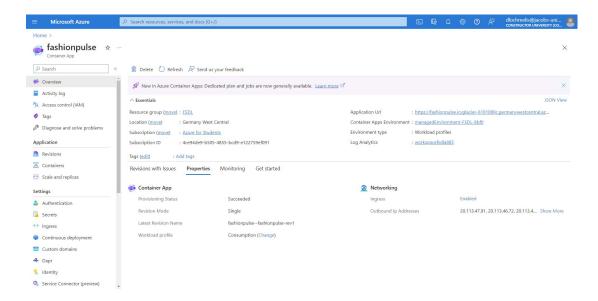
Server: FastAPI 👉



Deploying: Docker 🤪



Hosting: Azure 🥌



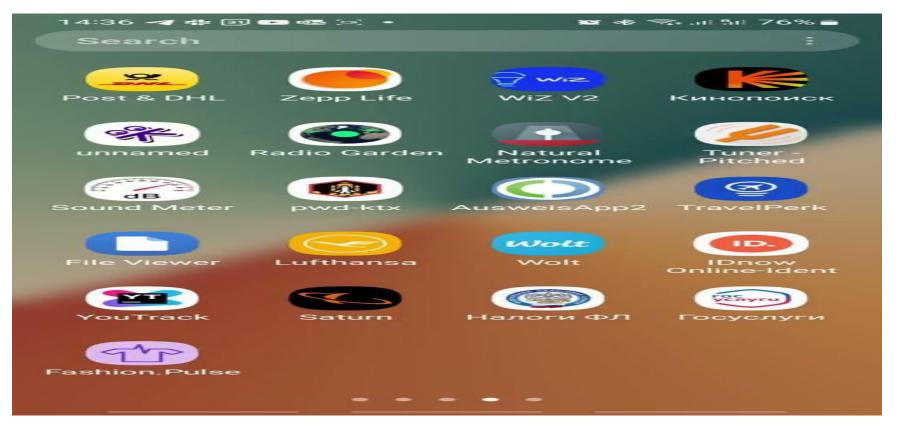
Summary: key problems

- Incomplete docs (a) (outdated guide, errors)
- BBB Python \\ \ \ \ \
- Manually collecting Pinterest boards
- Deploying for the first time

Showcase



Showcase



Links



repository



release APK