



# FashionBrain

## Research and Technology



UNIVERSITÉ DE FRIBOURG  
UNIVERSITÄT FREIBURG



The  
University  
Of  
Sheffield.



BEUTH HOCHSCHULE FÜR TECHNIK BERLIN  
University of Applied Sciences



# Execution Layer

# Interface Layer

# Application Layer

Models and Methods

Metrics and Interfaces

## CT1 Semantic Integration

Fashion Taxonomy  
Named Entity Linking/Recognition

UNIFR

## CT5 NLP + Image

Textual Product Search  
NLP + Deep Learning  
Transfer Learning

Zalando

## CT4 Scalable Methods

Named Entity Linking/Recognition  
Stacked Deep Learning

Beuth

## CT2 Data Management

Database Infrastructure  
Time Series Analysis  
Machine Learning

MDBS

## CT3 Crowdsourcing

Training Data  
Quality Control/Enrichment  
Social Media Analysis

USFD

## CT6 Image Recognition

Image Annotation/Classification  
Quality Control/Enrichment  
Data Normalization

Fashwell

## CT7 Trends Prediction

Social Media Analysis  
Time Series Analysis

UNIFR

Fashion Data (Image, Text, OEM, User Feedback)

Use Case 1 - Make Images Searchable

Use Case 2 - Fashion Trends Prediction

# Use case - Photo-based product search

SHOP THE LOOK



DIESE LOOKS KÖNNTEN DIR AUCH GEFALLEN  
Aktuell sind leider keine weiteren Looks verfügbar.

<  >

Ray-Ban  
149,95 €

<  >

Gipsy  
199,95 €

<  >

Lyle & Scott  
139,95 €

<  >

Shine Original  
29,95 €

<  >

Brooklyn's Own by Rocawear  
39,95 €

<  >

Won Hundred  
134,95 €

<  >

adidas Originals  
99,95 €

<  >

Das passt dazu  
Brixton  
59,95 €

# Use case

## Shop the look

- Link images to products
- Recommend relevant products
- Deep learning techniques
- Crowdsourcing
- Heterogeneous sources
- Semantic Integration
- Social media analysis
- Time series analysis
- Data management



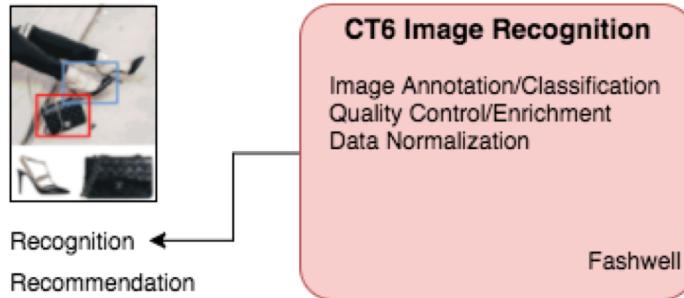
Recognition

Recommendation

# Use case

## Shop the look

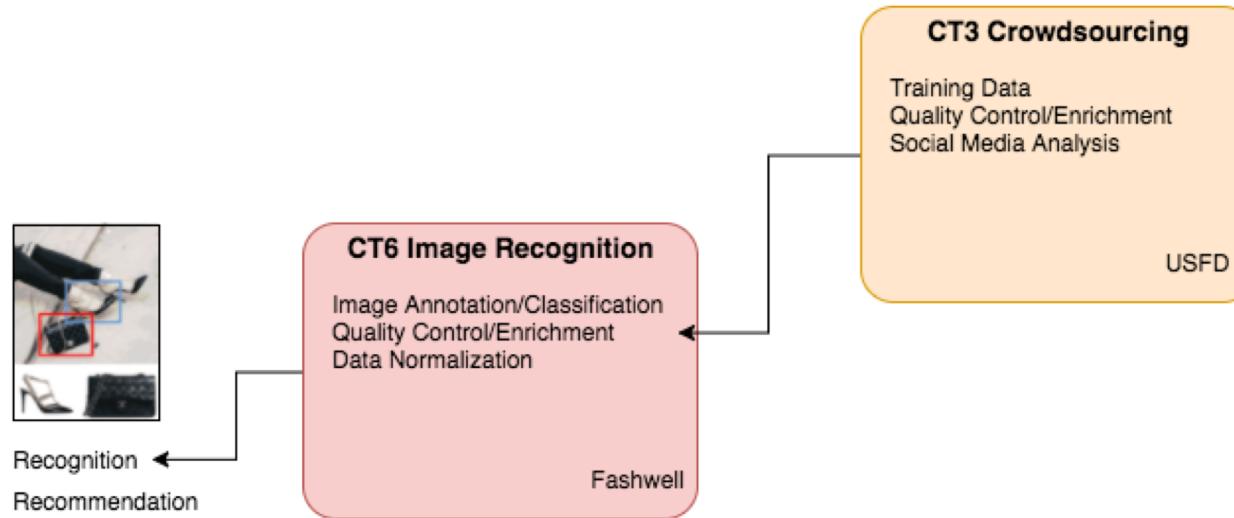
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# Use case

## Shop the look

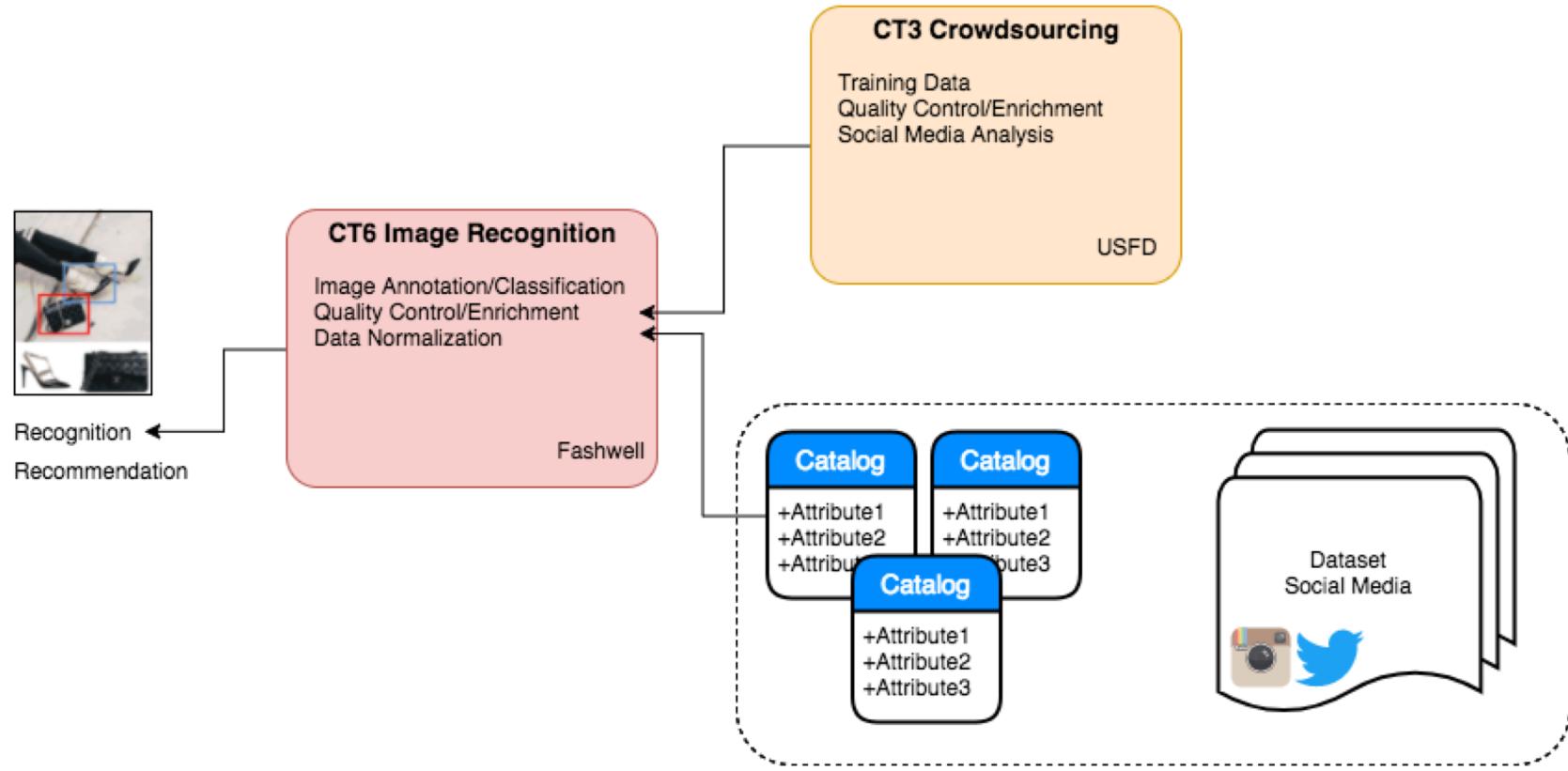
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# Use case

## Shop the look

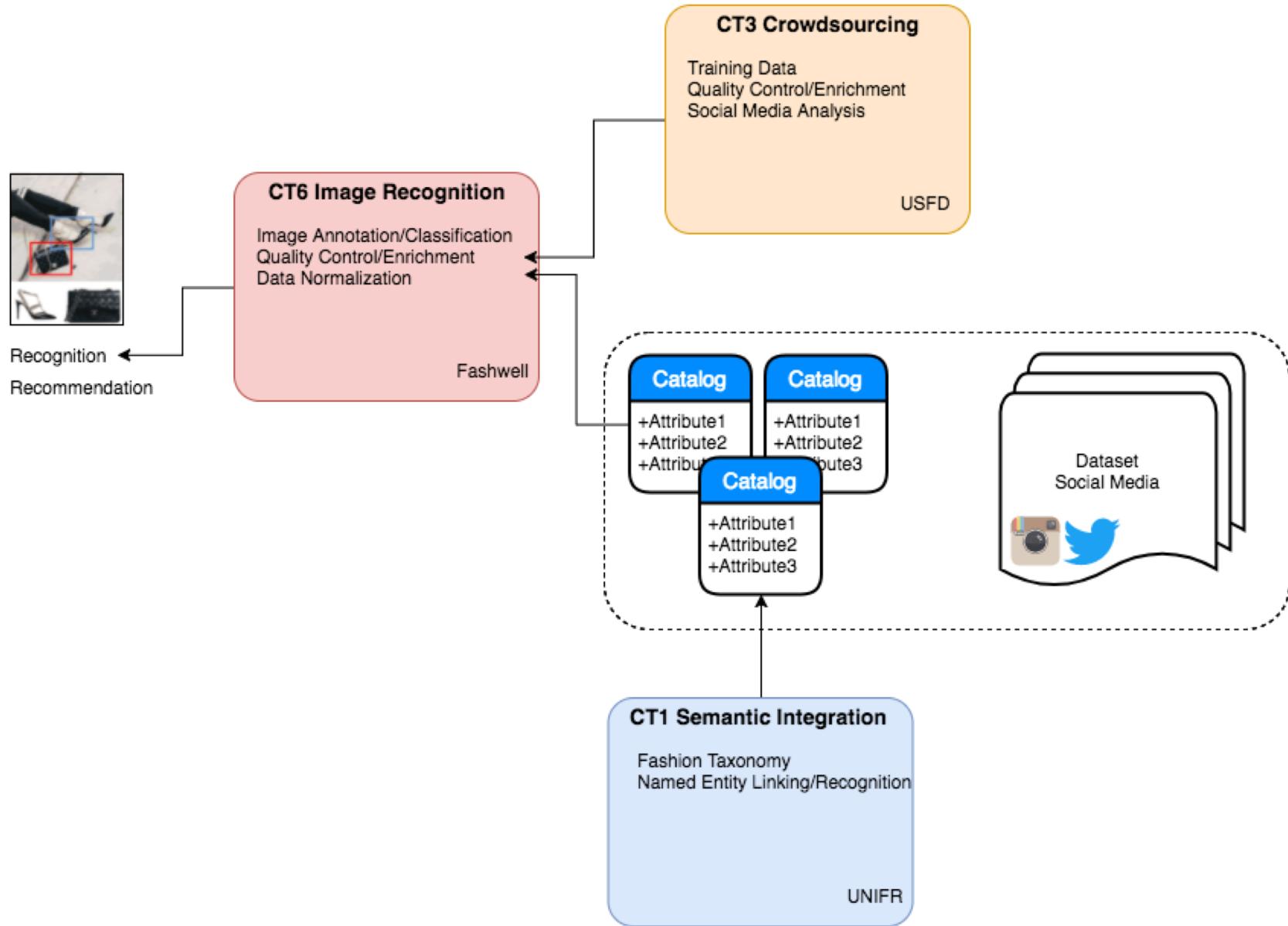
- Link images to products
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- Deep learning techniques
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- Heterogeneous sources
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# Use case

## Shop the look

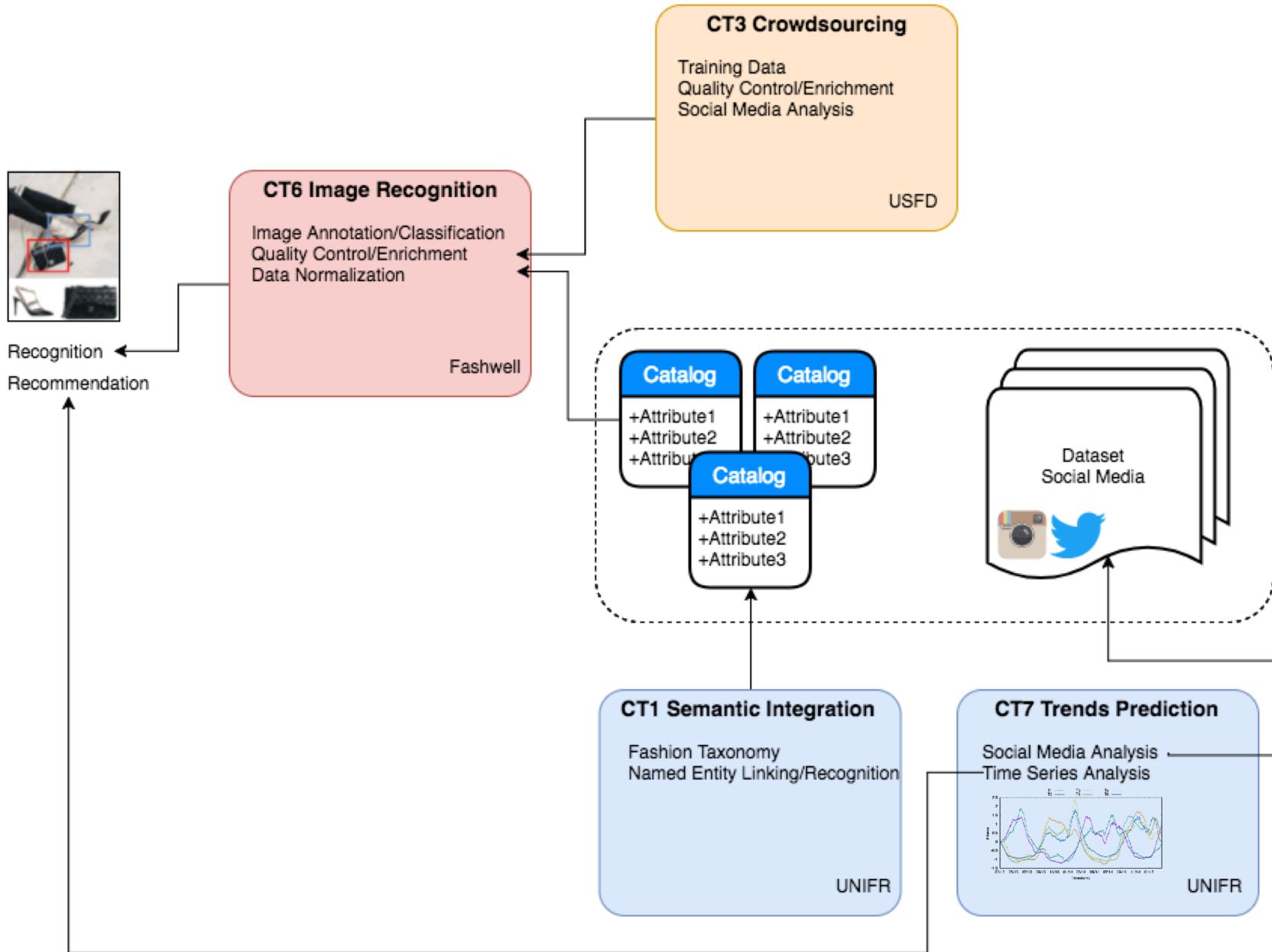
- Link images to products
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# Use case

## Shop the look

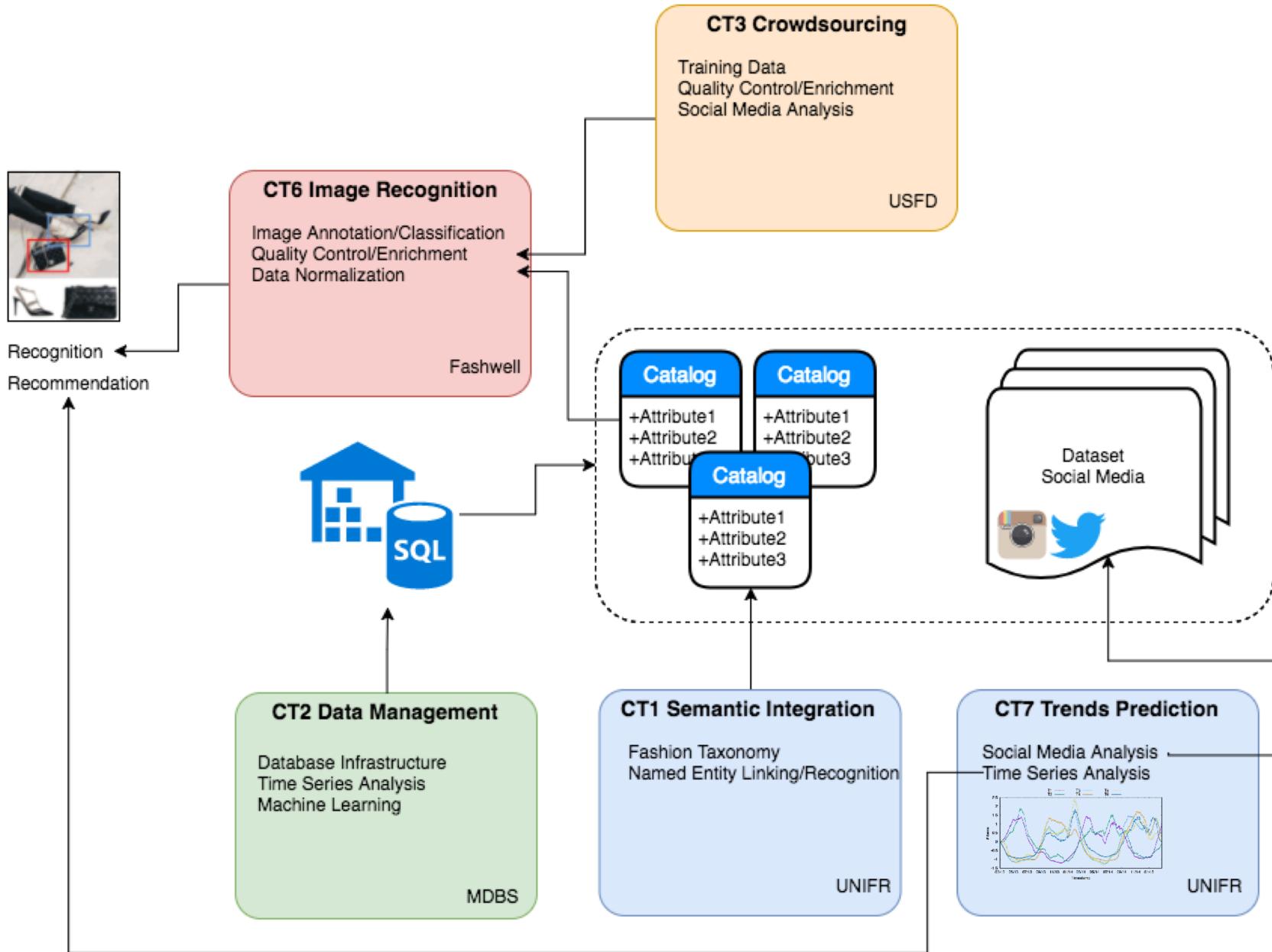
- Link images to products
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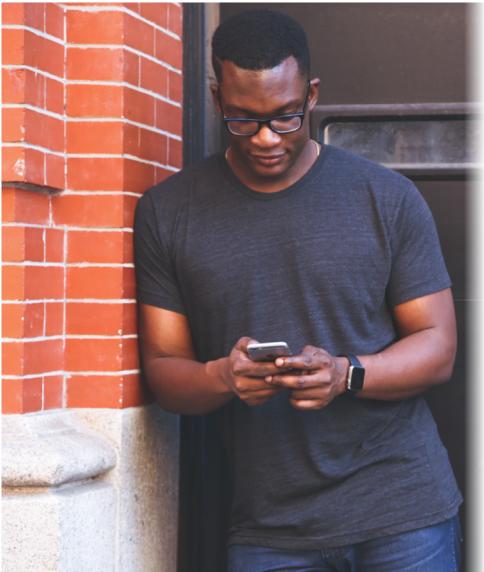
# Use case

## Shop the look

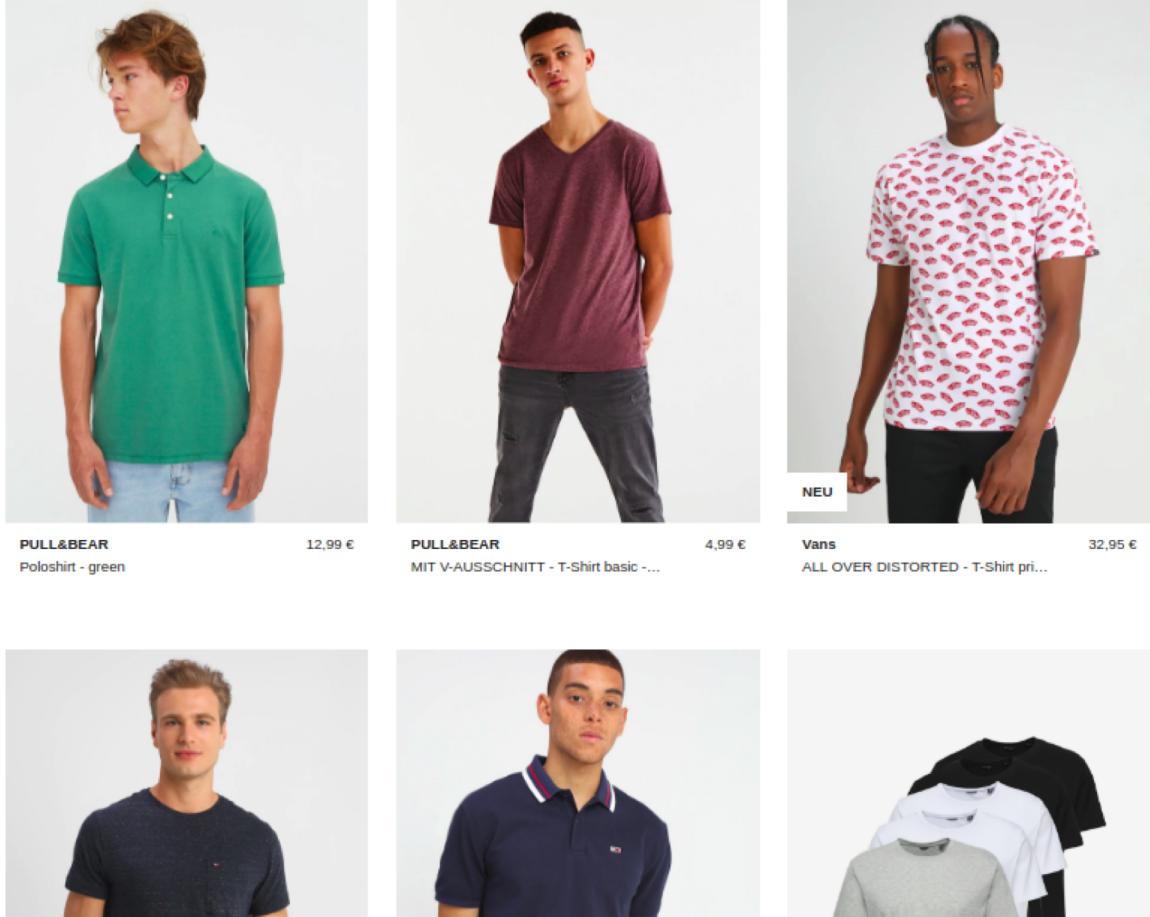
- Link images to products
- Recommend relevant products
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- Crowdsourcing
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# Use case - Make Images Searchable by Text



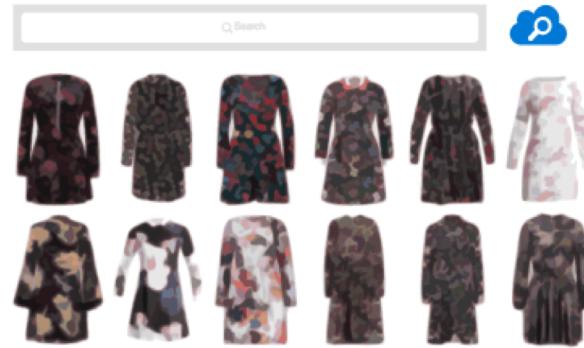
*"I need a hip shirt with short sleeves."*



# Use case

## Textual Search

- Heterogeneous data
- Multiple languages
- Deep learning techniques
- Crowdsourcing
- In-database implementation



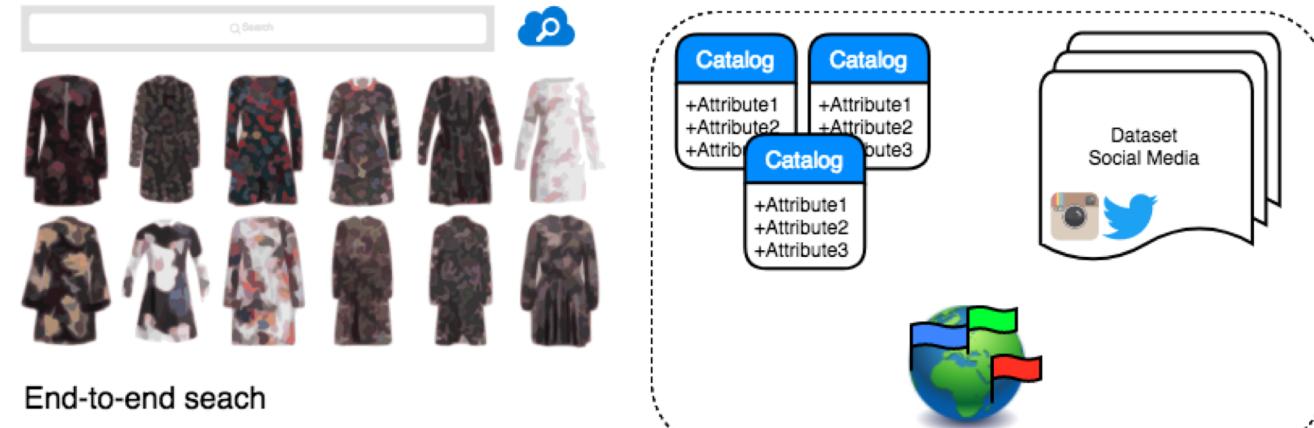
End-to-end search

Data quality

Performance

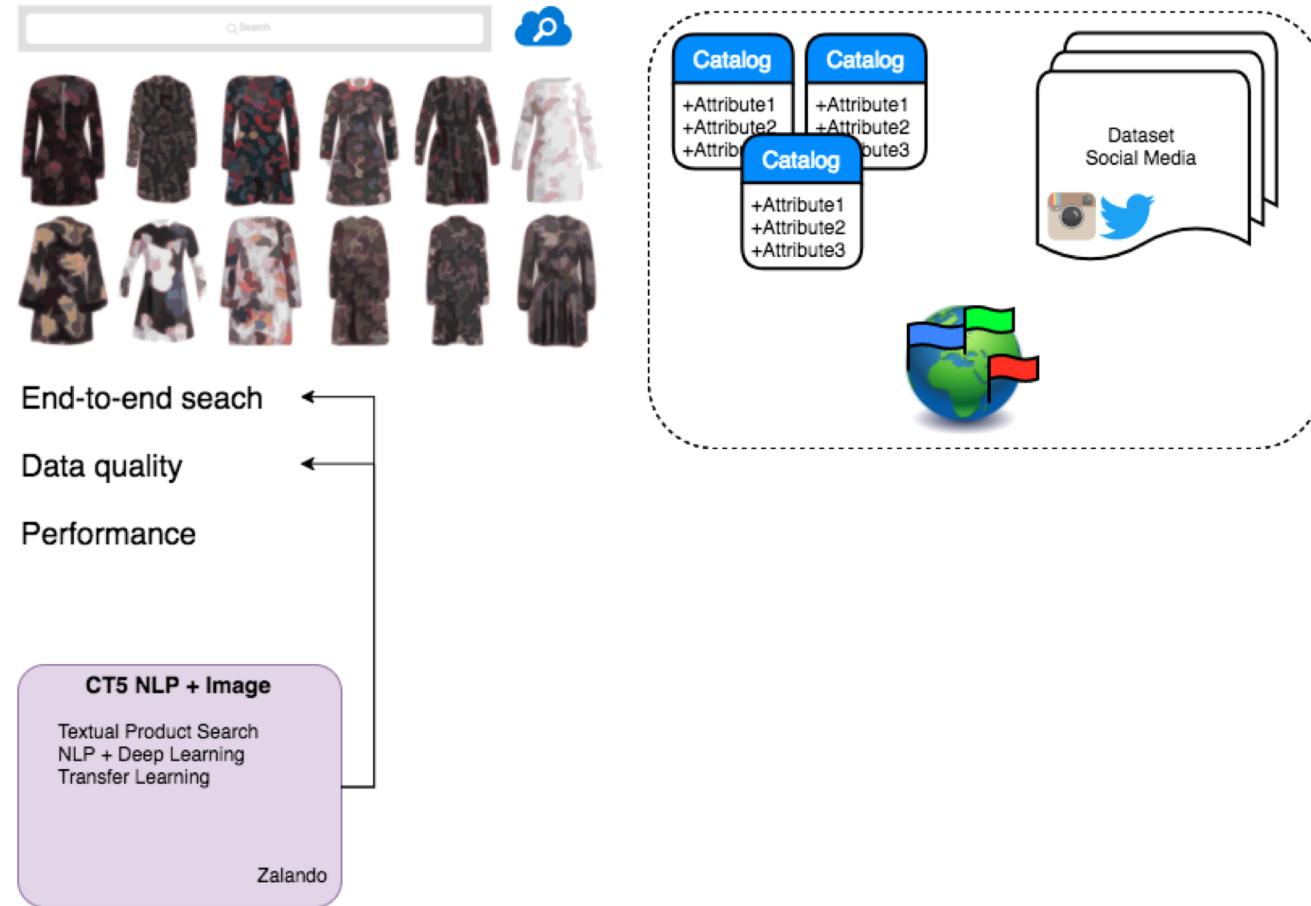
# Use case Textual Search

- Heterogeneous data
- Multiple languages
- Deep learning techniques
- Crowdsourcing
- In-database implementation



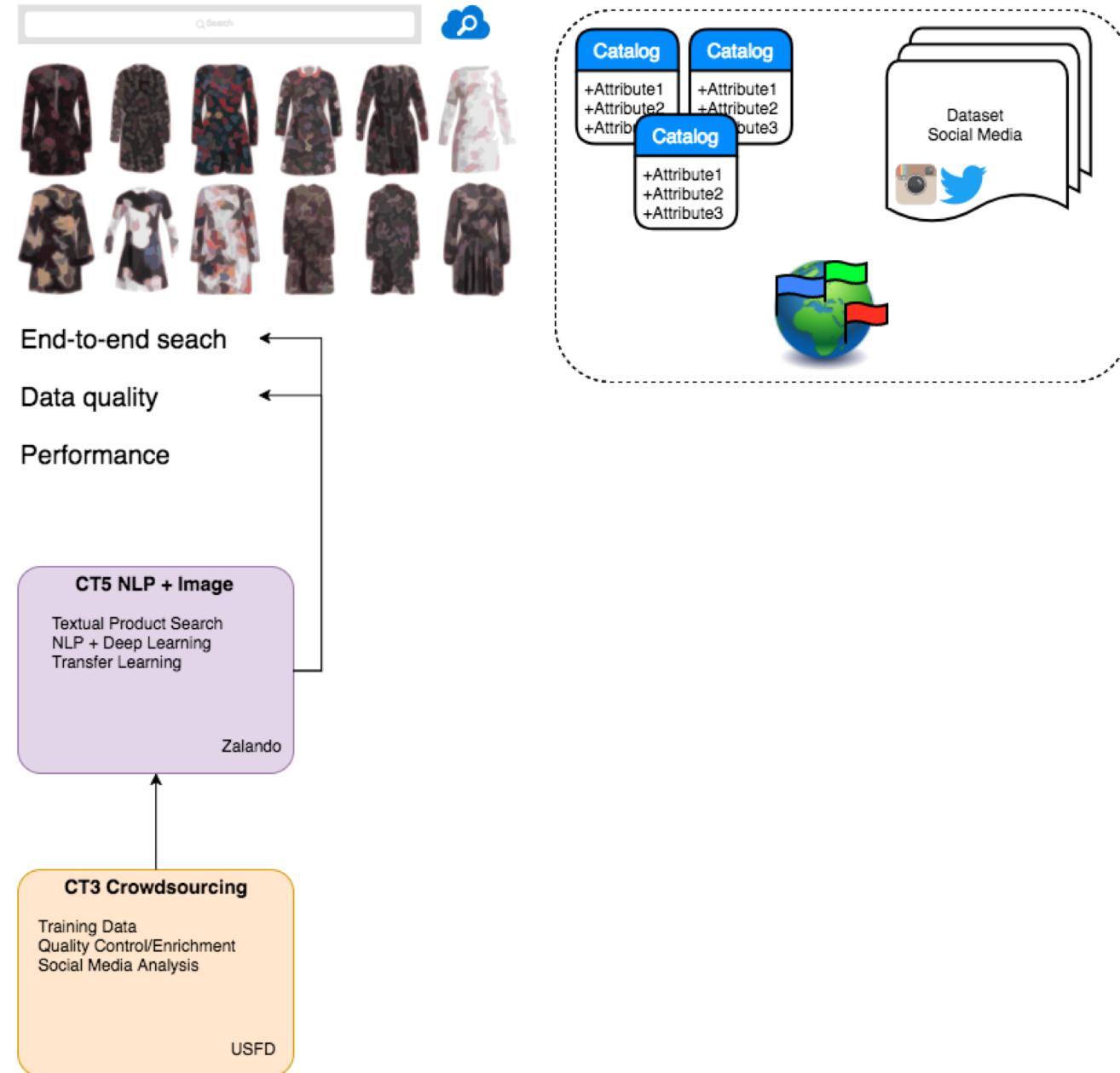
# Use case Textual Search

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