Beta Presentation
Maestro

The Capstone Experience

Team Amazon
Ruchika Gupta
Mo Almoamen
Kasidet Meteeputthi
Scott Macpherson
Sawyer Ruben

Department of Computer Science and Engineering
Michigan State University
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From Students…
...to Professionals
Project Overview

- Identify product description and product specification inaccuracies
- Crawl alternative online sources descriptions
- Use natural language processing to generate suggested changes to current product listings
- Compare quotient to threshold to flag inaccurate descriptions
- Write a diff doc for items to hold suggested value changes
- Display diff doc to users
System Architecture

Lambda Engine

- spaCy
- Lambda: item_processor
  - S3: alternate data
- Lambda: web_scraper
  - S3: diff docs

AWS

DynamoDB

React JS UI

Sellers
Merchant Product Catalog Dashboard

[Image of Amazon product dashboard with various products listed including Sony ALC-SH104 Lens, Acer V206HQL Abd 19.5" monitor, "HP E9Q82A8#ABA DreamColor Z24x Professional 24" LED-Backlit LCD Monitor, "Victoria's Secret Bling Sequins Stripes Pink Black Canvas Purse Tote Handbag, and others. Each product is listed with its ASIN number and a brief description.]

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Product Item Details

ASIN: B075P9R6NS

HP EliteDisplay 23-Inch Screen LED-Lit Monitor Silver (1FH46U9#ABA)
Suggested Changes Options
Updated Product Details

![Image of HP EliteDisplay 23-Inch Screen LED-Lit Monitor Silver](image)

### Product Details

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Color</strong></td>
<td>Stainless steel</td>
</tr>
<tr>
<td><strong>Brand</strong></td>
<td>HP</td>
</tr>
<tr>
<td><strong>Model Name</strong></td>
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<tr>
<td><strong>Resolution</strong></td>
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<tr>
<td><strong>Hardware Interface</strong></td>
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<td><strong>Display Technology</strong></td>
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<td><strong>Aspect Ratio</strong></td>
<td>16:9</td>
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<tr>
<td><strong>Response Time</strong></td>
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<td><strong>Item Dimensions</strong></td>
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<td><strong>Item Weight</strong></td>
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<td><strong>Image Contrast Ratio</strong></td>
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<td><strong>Pixel Pitch</strong></td>
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<td><strong>Mounting Type</strong></td>
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<td><strong>Refresh Rate</strong></td>
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</table>
Upload Products
Performance Metrics

- 1 billion products worldwide
- Sellers make trillions of updates annually

- Fill rate: 50.2%
- Average Suggestions/Product: 5.6
- Average Confidence Score: 84%
What’s left to do?

• Document code base
• Color adjustments on frontend
• Compute metrics for individual product lines
• Bundling code for delivery to client
Questions?