Project Plan Presentation
Smart Little Hunter of Fakes

The Capstone Experience

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Functional Specifications

- **Product Search:** find online marketplace listings based on a specific given set of copyright images and text
- **Product Comparison:** compare the copyright image and text with the marketplace listing and provide a Real/Fake/Unknown response
- **Prediction Improvement:** The system will return better quality results with repeated use.
Design Specifications

• **Product Comparison Tracker**
  ▪ Specialist compares listings and determines authenticity

• **Product Database**
  ▪ Specialist can access previously analyzed products

• **Product Information**
  ▪ More information about a product

• **Specialist Information**
  ▪ More information about the specialists who have rated products
Screen Mockup: Welcome Screen
Screen Mockup: Main Screen
Screen Mockup: Main Screen (Comment Dialog)
Screen Mockup: Database Screen
Screen Mockup: Product Screen
Screen Mockup: User Credibility Screen

<table>
<thead>
<tr>
<th>User</th>
<th>Occupation</th>
<th>Comments</th>
<th>Authenticity Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Burger</td>
<td>Ralph Lauren Brand Specialist</td>
<td>&quot;Based on certain parameters this image fits, I think its real&quot;</td>
<td>Real</td>
</tr>
<tr>
<td>Sam Smith</td>
<td>Doctor</td>
<td>&quot;I bought this for my daughter, and I trust the site I bought it from&quot;</td>
<td>Real</td>
</tr>
<tr>
<td>Sandra Sweeting</td>
<td>Author</td>
<td>&quot;There’s no way this product is real&quot;</td>
<td>Fake</td>
</tr>
<tr>
<td>Jim Hawkins</td>
<td>Nike Brand Specialist</td>
<td>No comment</td>
<td>Real</td>
</tr>
<tr>
<td>Taylor Turner</td>
<td>Pilot</td>
<td>No comment</td>
<td>Unknown</td>
</tr>
<tr>
<td>Andy Parker</td>
<td>Unemployed</td>
<td>&quot;I just have a gut feeling its fake&quot;</td>
<td>Fake</td>
</tr>
</tbody>
</table>

User Credibility for Product “Bear”
Technical Specifications

• .NET / C#
• Microsoft Azure:
  ▪ SQL Database
  ▪ Cognitive Services:
    o Custom Vision
    o Computer Vision
• ML.NET Model Builder
• ASP.NET
System Architecture
System Components

• Hardware Platforms
  ▪ Web Interface
  ▪ Desktop, laptop, cell phone, etc.
  ▪ Any device with a web browser

• Software Platforms / Technologies
  ▪ Programming languages:
    o C#
    o .NET
  ▪ Platforms:
    o Windows
  ▪ SDKs/ APIs:
    o ASP.NET
    o Microsoft Azure:
      ❖ Custom Vision
      ❖ Computer Vision
      ❖ SQL Database
    o Microsoft SQL Server Management Studio
Risks

- Risk 1:
  - Dealing with Real, Fake, and Unknown
  - Strong machine learning system, also tracking additional information such as site security, text description, and item verification

- Risk 2:
  - Authentication and Company Association
  - Sign in functionality, authentication for users and company, storing of user information

- Risk 3:
  - Useful Feedback
  - Easy to use interface that allows new products to be added, also access to information of each product such as product authenticity rating and real or fake listings of the product through the product page

- Risk 4:
  - Automation of our System
  - Strong connections between the three portions of our project. Useful training of ML model so when we let our model run, we have useable responses.
Questions?