Alpha Presentation
Cognitive Enterprise Software Robots

The Capstone Experience
Team Volkswagen

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Project Overview

• Software business bot to automate daily tasks
• PyAutoGUI to automate keyboard and mouse inputs
• Keras/Tensorflow to predict and learn future clicks
• Ability to log clicks in order to learn tasks and monitor bot’s performance
• Natural Language Processing to be able to interpret emails and perform business tasks
System Architecture

Email → PyAutoGUI → python → Keras

Data Storage
The Capstone Experience

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Screen Mockup: Calculating Date Difference

![Excel Sheet](attachment:OrderHistory.xlsx)

The Excel sheet shows a table with columns for `Part`, `Order ID`, `Name`, `Dis`, `Tab`, `VPA`, `Date`, `Amount`, `Open`, and `Date Difference`. The `Date Difference` column is highlighted to show the calculated difference between today's date (`2/11/19`) and a specific date in the `Date` column.
Screen Mockup: Parsing for Contact Information

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Part-ID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>435DFG3</td>
<td>A++</td>
<td>Dan</td>
<td>Weimer <a href="mailto:daniel.weimer@vw.com">daniel.weimer@vw.com</a></td>
</tr>
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<td>3</td>
<td>23HHJU</td>
<td>FlexBite</td>
<td>Dan</td>
<td>Weimer <a href="mailto:daniel.weimer@vw.com">daniel.weimer@vw.com</a></td>
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<td>Weimer <a href="mailto:daniel.weimer@vw.com">daniel.weimer@vw.com</a></td>
</tr>
<tr>
<td>5</td>
<td>DFA32DA</td>
<td>Futuredriv Alex</td>
<td>Balte</td>
<td><a href="mailto:extern.Alexander.Balte@vw.com">extern.Alexander.Balte@vw.com</a></td>
</tr>
<tr>
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<td>0988FHG2</td>
<td>XXX</td>
<td>Alex</td>
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<tr>
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<td>GERTB125</td>
<td>RocketSciè</td>
<td>Dan</td>
<td>Weimer <a href="mailto:daniel.weimer@vw.com">daniel.weimer@vw.com</a></td>
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<td>10</td>
<td>VNMJL23</td>
<td>WHO</td>
<td>Alex</td>
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<tr>
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<td>Trumpf CA</td>
<td>Alex</td>
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<tr>
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<td>none</td>
<td>Alex</td>
<td>Balte <a href="mailto:extern.Alexander.Balte@vw.com">extern.Alexander.Balte@vw.com</a></td>
</tr>
</tbody>
</table>
Dear Supplier,

This message is a reminder that the part with ID 435DFG3 (ordered on 12/01/2018) was scheduled for delivery on 02/12/2019. We have not received the part yet, but hope to do so by the aforementioned date.

Regards,
Volkswagen
Screen Mockup: Clickstream File

Lcontrol,W,T,Lcontrol,Lcontrol,Lcontrol,Lcontrol,Lcontrol,T,A,S,D,F,Oem_Period,C,O,M,
Escape,Lmenu,Tab,Lmenu,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Tab,Lcontrol,W,W,Tab,Lcontrol,W,
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Lmenu,Tab,Lmenu,Tab,Lmenu,Tab,Lmenu,Tab,
Lmenu,Tab,
Lmenu,Tab,
What’s left to do?

• Improve current Machine Learning model to be able to predict more clicks in the future
• Build capability to read and interpret incoming emails and perform an appropriate task
• Develop a monitoring system in order to detect and handle errors
• Integrate all parts into a singular cohesive structure
Questions?