MICHIGAN STATE UNIVERSITY **Beta Presentation Audit Automation Tool The Capstone Experience United Airlines Quality Assurance** Shafkat Kabir Haoyun Wu **Emily Goldwater** Adam Collier **Tejas Singhal** Department of Computer Science and Engineering **Michigan State University**

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Project Overview

- Leverage AI to make auditing process automated for United Airlines, one of America's foremost airlines
- By creating a web application to compare FAA and United Airlines regulations to vendor servicing manuals
- Showcase missing standards not found in the vendor manuals to streamline auditing process – reducing manpower required for auditing as well as the elongated auditing process time – bringing capacity back to the team

System Architecture



Team United Airlines Quality Assurance Beta Presentation

Home Page



Upload Page

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| - | Audit Automation Tool | | | | | | |
| | Request an audit | | | | | | |
| | Upload a vendor manual and fill out the form below to get an Al-generated audit. | | | | | | |
| | Create New Audit | | | | | | |
| | Engine Components Other | | | | | | |
| | Upload United Airline and FAA requirements | | | | | | |
| | UFLOAD FILES REGOLATION FILES | | | | | | |
| | Upload Vendor Manuals | | | | | | |
| | C UPLOAD FILES & VENDOR MANUALS | | | | | | |
| | SUBMIT > | | | | | | |
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Results Page

| audit-automation-tool.com | result. | | | | | | | | | |
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| Audit Au | tomatic | on Tool | | | | | | | | |
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| | | | Q.A. POLICY & PROCEDURES QUALITY AUDIT DEPARTMENT | | | | | | | |
| | | | WOALITT AODIT DEPARTMENT | | | | | | | |
| | | | 1. Policy / Certifications (************************************ | Record the observed contributing Human | | | | | | |
| | | | Complacency (HF3) Lack of Knowledge | (HF4) Distractions (HF5) Lack of Teamwork | | | | | | |
| | | | | HF8) Pressure (HF9) Lack of Assertiveness | | | | | | |
| | | | (MP10) Stress (MP11) Lack of Awarenes: | (HF12) Norms } | | | | | | |
| | | | (HF10) Stress (HF11) Lack of Awareness OUESTION | (HF12) Norms) YESNONA | | | | | | |
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| | | | QUESTION | The information provided in the contont does not allow | | | | | | |
| | | | OUESTION 1. Obtain and review a copy of the current FAA A Agency, or Transport Canada AMO certificate, an Operations Specification (if applicable), Are they accurate? [48 CFR 180.205]ci] [145 1] [2A] 2. If the repair station has "Limited Ratings," doe | The information provided in the context does not allow a conclusion to be made about whether the TOCA is n good source of information | | | | | | |
| | | | OUESTION 1. Obtain and review a copy of the current FAA A Agency, or Transport Canada AMO certificate, an Operations Specifications (if applicable). Are they accurate? [49 CFR 199.205(c)] [145.1] [2A] 2. If the repair station has "Limited Ratings," doe the vendor have a capabilities listing that satisfies the standard (Housing, Facility, Tool & Teat, Mate | The information provided in the context does not allow a conclusion to be made about whether the TCCA is n good source of information. | | | | | | |
| | | | OUESTICN 1. Obtain and review a copy of the current FAA Al Agency, or Transport Canada AMO certificate, an Operations Specifications (if applicable), Are they accurate? [46 CFR 199.206(c)] [145.1] [2A] 2. If the repair station has "Limited Ratings," doe the vendor have a capabilities listing that actisfie | The information provided in the context does not allow a conclusion to be made about whether the TCCA is n good source of information. | | | | | | |
| | | | OUESTION 1. Obtain and review a copy of the current FAA A Agency, or Transport Canada AMO certificate, an Operations Specification (if applicable). Are they accurate? [48 CFR 189.265(c)] [145 1] [2A] 2. If the repair atation has "Limited Ratings," doe the vendor have a capabilities listing that add566 the standerd (Housing, Facility, Tool & Teat, Mate Equipment, Tach Data, Processes, & Instand | NESNCINA The information provided in the context does not allow a conclusion to be made about whether the TCCA is on good source of information. Image: Transmission of information of information. Image: Transmission of information of information. | | | | | | |

History Page

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|------------|--------------------------|------------------------------|--|--|--|
| Date | ID | Auditor | Description | Type | |
| 2020-11-12 | 2 | Emily | QSM | Engine | |
| 2020-12-30 | ٦ | Shafkat | RSM | Engine | |
| 2021-1-23 | 3 | Haoyun | QSM | Other | |
| | | | | | |
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| | 2020-11-12 2020-12-30 | 2020-11-12 2 2020-12-30 1 | 2020-11-12 2 Emily 2020-12-30 1 Shafkat | 2020-11-12 2 Emily QSM 2020-12-30 1 Shafkat RSM | 2020-11-12 2 Emily QSM Engine 2020-12-30 1 Shafkat RSM Engine |

What's left to do?

- Features
- Stretch Goals
 - Intermediary page
 - Chatbot
- Other Tasks
 - Improve accuracy
 - Improve efficiency

Questions?

