

CODE *for*
AMERICA

AI-Powered Accessibility Audits

Where AI can move forward state and local governments' efforts PDF accessibility



Marlena Medford

Senior Director of Strategic Communications



Jenn Thom

Senior Director of Data Science



Fahad Quraishi

Senior Director of Product



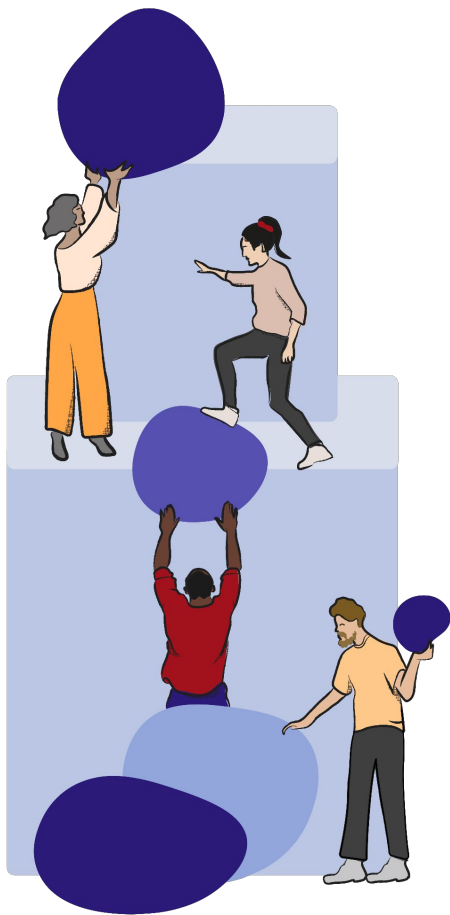
Leo Kacenjar

Staff Solutions Engineer



Allie Morgan

Staff Data Scientist



About Code for America

We use human-centered technology to improve public services and make government work well for everyone.

The Problem

- 1 in 4 adults in the U.S. (over 70 million people) live with a disability
- Almost every gov't website uses PDFs, which often do not meet accessibility standards
 - Example: Untagged PDF documents appear as blank images for people who rely on screen readers
 - The majority of PDFs on federal gov't websites (>70%) have at least one web accessibility issue
- For gov't, manual audits of PDFs can be resource-intensive and time-consuming
- Streamlining accessibility efforts can help agencies better serve all people while reducing compliance risks (i.e. [Title II of the Americans with Disabilities Act](#))

Compliance Timeline for all state and local governments

- From the U.S. Department of Justice [website](#):
 - State and local governments must make sure that their web content and mobile apps meet WCAG 2.1, Level AA standards.
 - This table shows how much time a state or local government has to comply with this rule.

State and local government size	Compliance Date
0 to 49,999 persons	April 26, 2027
Special district governments	April 26, 2027
50,000 or more persons	April 24, 2026

- As of May 2025, there has been no signal on any changes to this plan.

The Solution

- Code for America's AI Studio is leveraging the latest advancements in AI technology to automate PDF accessibility analysis.
- We've designed a tool that can provide insights so government can more confidently set an effective and efficient plan for accessibility.
- Key benefits of the tool:
 - More efficient use of time with automated PDF audits
 - Prioritize content for remediation, archiving, or text to website
 - Provide a lower-cost solution for governments at the local and state level
 - Ensure compliance with Section 508 and WCAG standards

Demo: Crawl all agency PDFs

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Audit Backlog

9.72k

In Review

8

Audit Done

0

Filter Results

Time Frame

mm / dd / yyyy

mm / dd / yyyy

File Name

Search by file or web page...

Document Type

All Types

Decision

All Decisions

Department

All Departments

Complexity

Salt Lake City, UT: SLC.gov

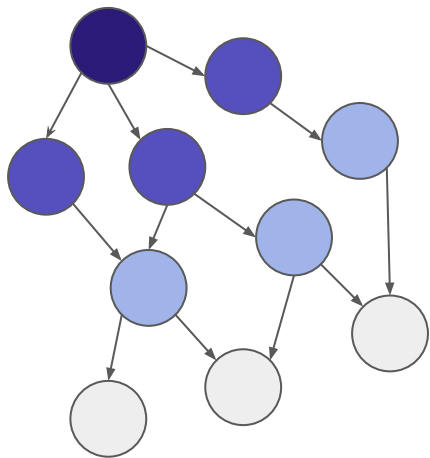
Documents

Insights

MOVE	FILE NAME	LAST MODIFIED	TYPE	DECISION	NOTES
☐	Northpoint Small Area Plan Memo package.pdf planning • 2022-planning-commission-records	Jul 21, 2022	Report 100%	Leave Likely not exception	No notes
☐	220126 PC Memo DRAFT Urban Forest Action Plan_chapters 1-4 appended.pdf planning • 2022-planning-commission-records	Jan 21, 2022	Report 100%	Remediate	No notes
☐	PowerPoint Presentation transportation • 2023 • 12 • 08 • safesidestreets	Nov 16, 2022	Slides 100%	Needs Decision Likely not exception	No notes
☐	PowerPoint Presentation sustainability • evready	Dec 02, 2020	Slides 100%	Needs Decision Might be exception	No notes
☐	PowerPoint Presentation district5 • projects • current • ballpark-station-area-rezones	Apr 02, 2024	Slides 100%	Needs Decision Likely not exception	No notes
☐	Professional Memo planning • 2022-planning-commission-records	Mar 18, 2022	Report 100%	Needs Decision Might be exception	No notes
☐	Professional Memo planning • 2022-planning-commission-records	Jun 02, 2022	Report 100%	Needs Decision Might be exception	No notes
☐	Professional Memo planning • 2022-planning-commission-records	Jul 21, 2022	Report 100%	Needs Decision	No notes
☐	PowerPoint Presentation council • landscaping-buffers-chapter-amendments	Feb 06, 2024	Slides 100%	Needs Decision Might be exception	No notes

Technical Context: Crawler

- Approach



- Starts from a government homepage (deep blue)
 - Visit all of the links on that page (lighter blue)
 - Then visit all of the links on those pages (lightest blue), ...
- We usually go out (at most) seven hops from the homepage. Depends on the size of their site, but usually that encompasses most everything.
- Along the way, we keep track of any PDF files we find and any information about them (e.g., link, title, referring link, author, modified date, etc.)

Demo: Sorting, filtering, and searching data

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Audit Backlog

527

In Review

0

Audit Done

0

Filter Results

Time Frame

mm / dd / yyyy

mm / dd / yyyy

File Name

Search by file or web page...

Document Type

All Types

Decision

All Decisions

Complexity

All Documents

Clear

Apply Filters

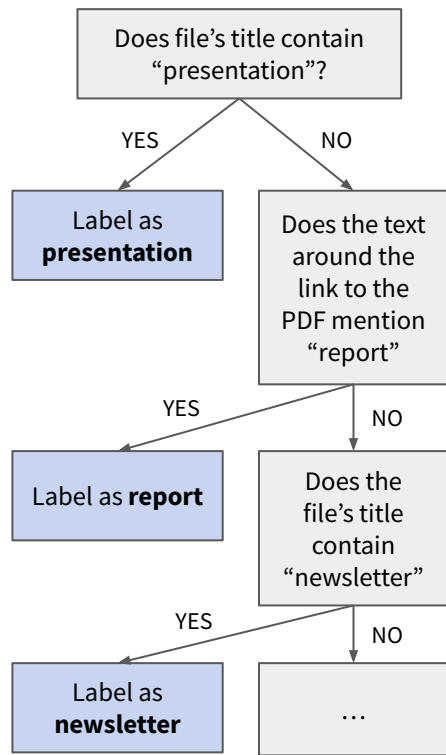
Georgia: Department of Human Services Division of Family & Children Services

Documents

Insights

MOVE	FILE NAME	LAST MODIFIED	TYPE	DECISION	NOTES
☐	PowerPoint Presentation dfcs-advisory-board-meeting-november-12-2024	Jan 16, 2025	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-august-13-2024	Sep 06, 2024	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-march-12-2019	Aug 22, 2019	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-march-11-2025	Mar 14, 2025	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-april-9-2024	Apr 11, 2024	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-march-13-2018	Mar 20, 2018	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-june-12-2018	Mar 18, 2025	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-december-12-2017	Dec 14, 2017	Slides 100%	Needs Decision	No notes
☐	PowerPoint Presentation dfcs-advisory-board-meeting-march-9-2021	Mar 17, 2025	Slides 100%	Needs Decision	No notes

Technical Context: Classifier



- Motivation

- Provide a way to organize / prioritize all of those PDFs for accessibility purposes. We think document classification can help.

- Approach

- Take those features we collect while capturing PDFs to try to learn how to automatically categorize each document.
- We use a common decision tree ML algorithm to classify each. This model builds a bunch of decision trees and then takes a vote to classify.
- We've completed an initial evaluation of this approach (and an LLM based one) on the PDFs from one of our government websites. **Results are promising but we need your help to improve!**

Technical Context: Summarizer

- Motivation
 - Simplify how users consume long, complex documents that may be full of text, images, and diagrams.
- Approach
 - Leverage modular/model-agnostic approach (LLM Python Library)
 - Instead of going with a text-based solution, we leveraged the multi-modal capabilities of LLMs.
 - Break PDFs up into pages represented as images in the form of jpegs.
 - We're currently using Gemini Flash as our LLM solution but we also evaluated Claude Haiku.

Demo: AI summarization

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989-rezone-zoning-map.pdf
www.slc.gov • planning • 2020 • 04 • 08 • 989-e-900-south-rb-to-cb-rezone

Summary PDF Details AI Exception Check History

The zoning map displays the zoning districts around the subject property located at 989, near the intersection of 1000 E and 900 S. The subject property is zoned as Residential/Business (RB), with nearby properties zoned as Community Business (CB), Single-Family Residential (R-1/5,000), and Moderate Density Multi-Family Residential (RMF-35). The map also shows public lands (PL) and institutional (I) zones in the vicinity.

989-rezone-zonin... 1 / 1 67% +


1

Zoning Map


989-rezone-zoning-map.pdf
planning • 2020 • 04 • 08 • 989-e-900-south- Mar 11, 2020 Diagram Needs Decision No notes

Demo: AI policy exception checker

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Audit Backlog 9.72k

In Review 8

Audit Done 0

Filter Results

Time Frame

mm / dd / yyyy

mm / dd / yyyy

File Name

Search by file or web page...

Document Type

All Types

Decision

All Decisions

Department

All Departments

Complexity

All Documents

Salt Lake City, UT: SLC.gov

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Needs Decision

Leave PDF as-is

Remediate PDF

Convert PDF to web content

Remove PDF from website

Technical Context: AI policy exception checker

- Motivation

- Provide support in determining whether a document should be exempt from the ADA rule.
- Exempt means no further actions are necessary
- Four applicable exemption criteria: Archived, Pre-existing, Third Party and Individualized

- Approach

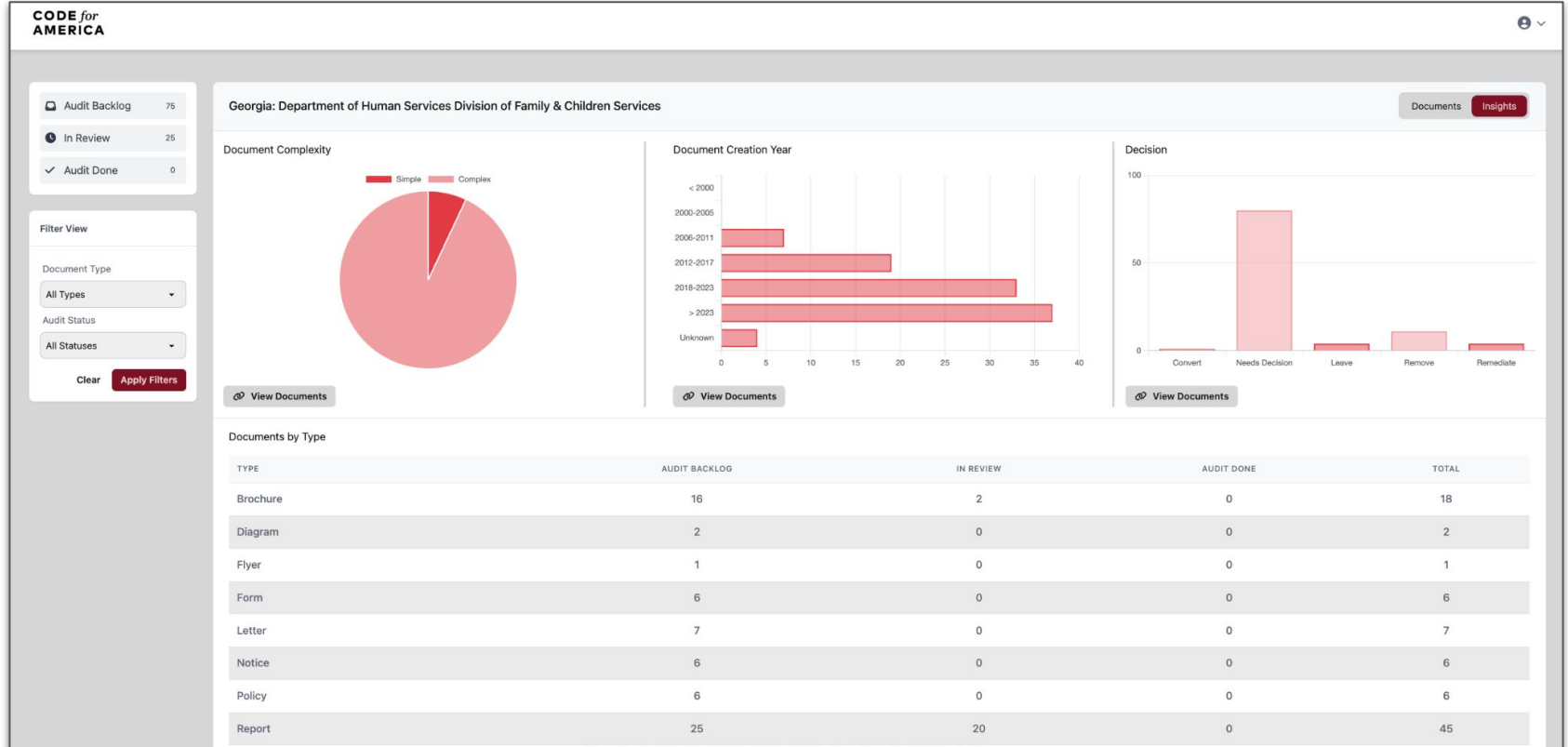
- Same pdf to image pages approach - use an LLM to interpret the images and then describe the image in text
- Exploring the use of a step-wise conversation prompt to an LLM

More information: https://github.com/codeforamerica/asap_pdf/blob/main/docs/architecture.md

Demo: Make decision

Georgia: Department of Revenue					
MOVE	FILE NAME	LAST MODIFIED	TYPE	DECISION	NOTES
☐					
☐	 Microsoft Word - Form IT-QPJ it-qpj 	Jan 03, 2017	Form  100%	Remediate  Might be exception	No notes
☐	 PowerPoint Presentation caveat-presentations 	May 22, 2024	Slides  99%	✓ Needs Decision Leave PDF as-is Remediate PDF Convert PDF to web content Remove PDF from website	
☐	 PowerPoint Presentation caveat-presentations 	May 22, 2024	Slides  99%		
☐	 Form OIC-1 Georgia Department of Revenue Offer in Compromise Application oic-1-offer-compromise 	Aug 13, 2024	Form  99%	Needs Decision	No notes

Upcoming feature: Analytics Dashboard



**Code for America's Web Accessibility
tool is now open source and
ready for you to use.**



Thank you!



Jenn Thom
jthom@codeforamerica.org



Marlena Medford
mmedford@codeforamerica.org