

New Ideas and Prototypes



My In-Person Interview with Lloyd, MS Forms is difficult

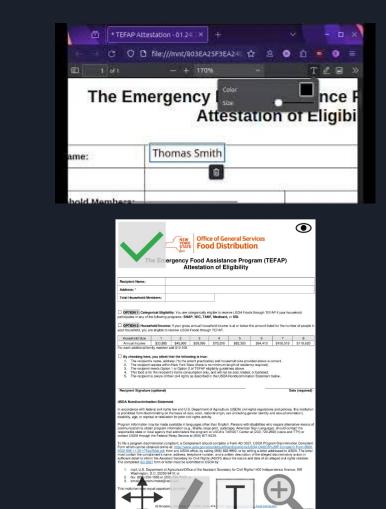
During the interview, Lloyd informed me that the Microsoft Forms idea would be difficult to implement because the TEFAP form changes frequently, and it would have to be manually converted by hand into a digital form every time.

I have two ideas on how to create a digital form system that can adapt to different PDFs.



Idea 1: PDF Editor

The Firefox browser has an excellent PDF editor built-in. Because this PDF editor is open source, it could be modified to make it easier to use on mobile devices and reduce the number of buttons to just what is needed to fill out the form.



Idea 2: Scanning PDF for Inputs

The TEFAP forms contain text that a computer can read. Because of this, it might be possible to create a tablet app that reads the text in the PDF and automatically finds inputs. This would use the open-source "Poppler" library to read text. All lines that are followed by a colon will be considered inputs. The signature and date inputs don't contain any colons, so these would be detected using the words "Signature" and "Date" (the code would also need to include "Signature" and "Date" in other languages).

The Emergency Food Assistance Program (TEFAP) Attestation of Eligibility Recipient Name: Address: * Total Household Members: □ OPTION 1: Categorical Eligibility: You are categorically eligible to receive USDA Foods through TEFAP if your household participates in any of the following programs: SNAP, WIC, TANF, Medicaid, or SSI. □ OPTION 2: Household Income: If your gross annual household income is at or below the amount listed for the number of people in your household, you are eligible to receive USDA Foods through TEFAP. Household Size 2 Annual Income \$33.885 \$45,990 For each additional family member add \$12,105. 345678 \$58,095\$70,200\$82,305\$94,410\$106,515\$118,620 □ By checking here, you attest that the following is true: 1. 2. 3. 4. 5. The recipient's name, address (*to the extent practicable) and household size provided above is correct. The recipient resides within New York State (there is no minimum length of

residency required).



In order to prevent false negatives (the program not detecting an input), the program must contain an interface that the form creator can use to manually add fields. For example, the program will always look for a line with the word "Signature" and make it a field. The form administrator must be able to add their own keywords.

Once a keyword has been added, it should stay for all future forms (unless it is deleted). In order to ensure that the process of adding keywords remains quick, and is not slowed down by the need to use multiple languages of forms, maybe the program could connect to a machine translating service and automatically translate the english keyword that the form administrator enters. Since keywords will likely be a single word, I hope that the machine translation would produce accurate results.

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<u>Scanning PDF for</u> <u>Inputs Prototype</u>

Here is a prototype made in Figma that shows what the interface for this program might look like. For each input that the program finds, it will zoom in on that part of the PDF, then have a text box below for input. The user would be able to drag their finger along the pdf part of the screen to pan it and read text that might be cut off.

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Thank you!