

# Compassion A



Compassion International is an American child sponsorship and humanitarian aid organization headquartered in Colorado Springs, Colorado, that aims to positively influence the long-term development of children globally who live in poverty.

## Project Description

This case is a continuation of work done last semester by an HDAG case team. Compassion supports specific partner churches or communities through Complementary Interventions (CIVs). While CIVs are well-documented, there is a gap in the categorization available for analytics. Building upon the work from last semester, HDAG will develop a model to measure how CIV sub-categories determined by the Fall 2022 team align with a set of 22 outcome measures provided by Compassion. Then, HDAG will use this model to identify geographic need clusters where children are widely underserved.

1. **NLP:** Python scripts containing NLP or other methods of categorization, which can be integrated into Compassion's systems to group future CIVs.
2. **(Secondary) Outcomes Correlation:** An analysis framework for correlating completed CIVs with outcome survey results for Tanzania and/or Indonesia.
3. **Need clusters:** A visual representation of geographic locations with similar needs following outcomes analysis, comparing implementation of CIVs within these clusters.

**Internal Partners:** Senior Program Cycle Coordinator at Compassion

**Datasets:** Salesforce database containing 24,000 CIV records; Outcomes dataset (secondary)

**Deliverables:** Midpoint and final deliverable

**Preferred Coding Languages:** Python, R (optional)

## Specific Skills

1. NLP: extract meaning and grouping from CIV descriptions
2. Statistics: secondary outcomes correlation analysis

Expected Technical Difficulty: **Intermediate**

## **Compassion B**



Compassion International is an American child sponsorship and humanitarian aid organization headquartered in Colorado Springs, Colorado, that aims to positively influence the long-term development of children globally who live in poverty.

### **Project Description**

Compassion call center transcripts could offer a wealth of insight around Compassion sponsors/donors' pain points, questions, emotions, and needs across their entire journey with our organization. Today, Compassion call center tech stack supports very basic analytics (e.g. basic sentiment), but they would like to develop a Natural Language Processing Model (NLP) to automatically code quotes from the transcripts into more meaningful themes.

1. **NLP:** Develop a NLP model to identify key themes, based on a code frame the marketing team will provide—examples including:
  - a. Top themes by stage of the Compassion journey
  - b. Key pain points
  - c. Advanced sentiment analytics
  - d. Themes related to brand perceptions
2. **Data Visualization:** Visualize NLP results in a secure dashboard/app that can be accessed any time and automatically updates
3. **Analysis:** Enhance understanding of drivers of +/- sentiment with regression analysis

**Internal Partners:** Learning Team Manager, Global Insight Director, and Global Insight Operations Lead at Compassion

**Datasets:** Supporter Call Center Transcripts from U.S. and Australia; Sponsor Dataset (secondary)

**Deliverables:** Midpoint and final deliverable

**Preferred Coding Languages:** Python

### **Specific Skills**

1. **NLP:** Develop NLP model identifying key themes in call transcripts
2. **Data Visualization:** Visualize NLP results in dashboard application

Expected Technical Difficulty: **Advanced**