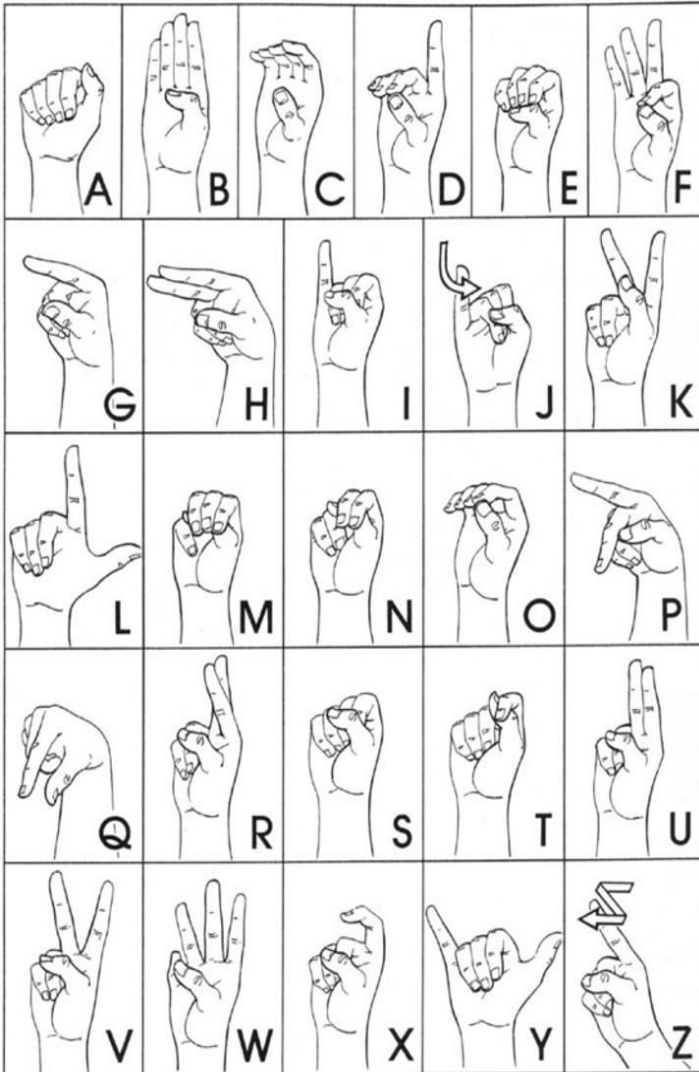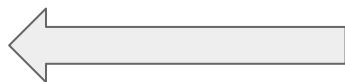# Metafrasimáton

Team: Hulkbusters
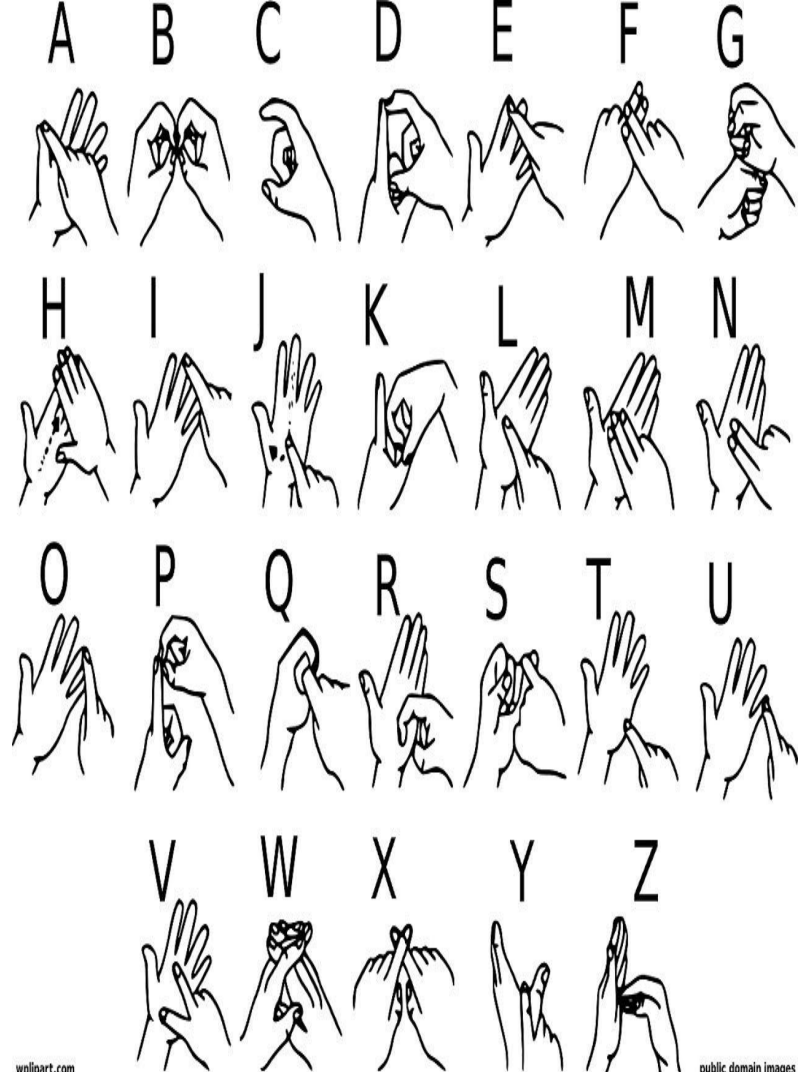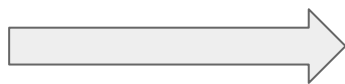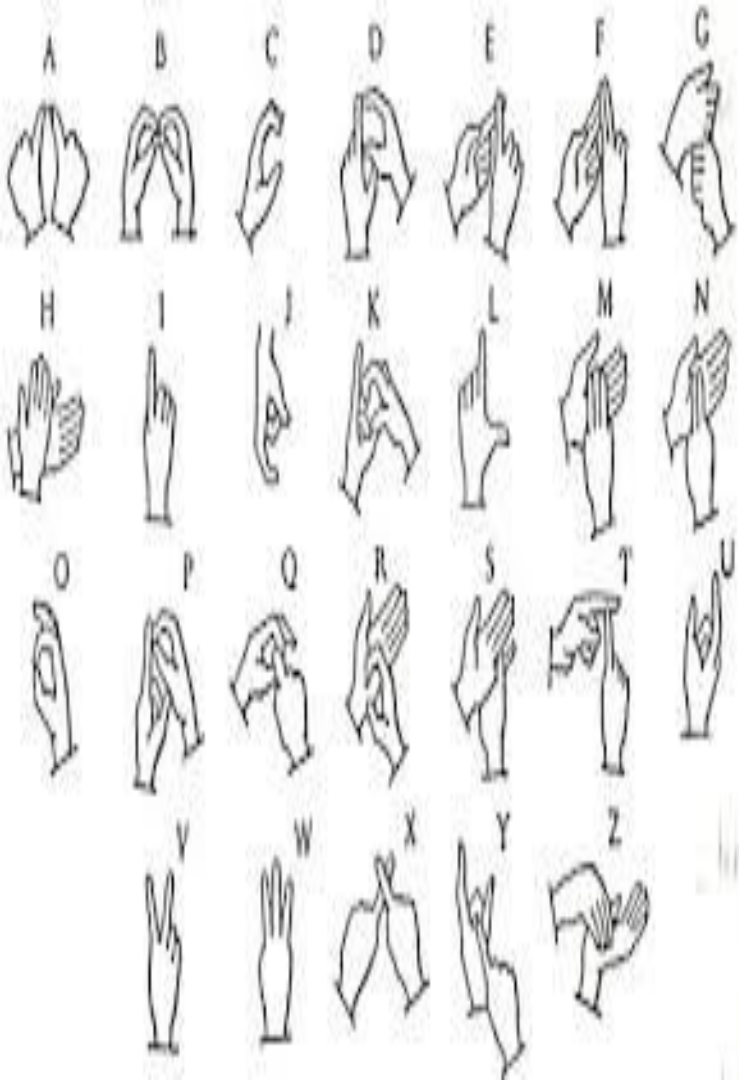- ❏ Pranav S
- ❏ Smit Patel
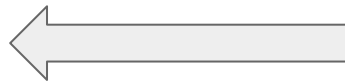- ❏ Vineet R

AMERICAN

BRITISH

INDIAN

GERMAN

# Idea

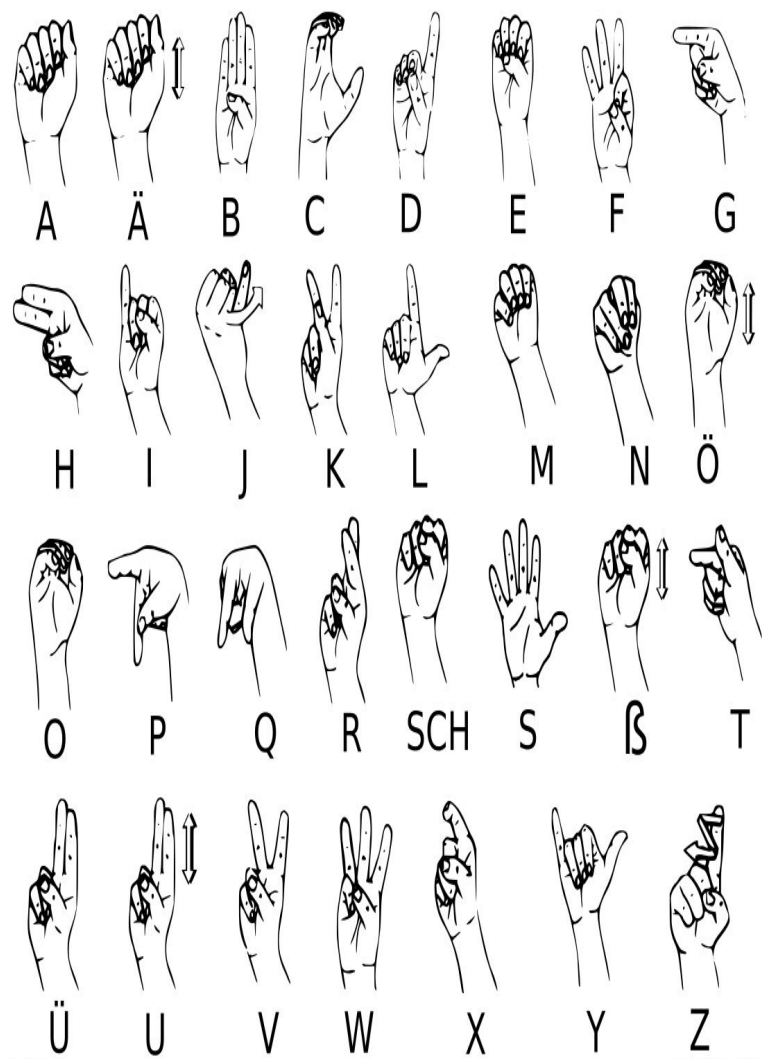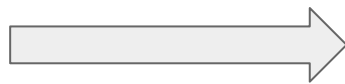- A real-time sign language to sign language translation

# What the problem is?

- Total Sign languages around the world - 300*

- Number of people who use sign language - 466 million

- Not universal*

- Diversity & inclusion


EVERYONE MATTERS

# Solution

- Detecting gestures of one sign language and converting it to another in real time

- Focussed on American to Indian sign language conversion

# Dataset & Tech Stack

- Python
- OpenCV
- Keras, Tensorflow
- Dataset for American Sign Language:
  - [Sign Language MNIST](#)

# Architecture

A convolution neural network was used

- No of classes = 24 ('J' and 'Z' are non-static)
- 3 hidden layers ; ReLU activation
- Keras, Tensorflow
- Used a CNN:
  - 3 convolution layers with relu activation
  - SGD with cross-entropy loss

# Impact on Society

- Inclusive & diverse society
- More opportunities to People with hearing & speech impairment in terms of employment
- Can help fill the absence of universal language

Demo Time!

# Conclusions & Future Work

- Needs more training in order to avoid wrong interpretations

- Scaling it up to word level training

- Include more languages in the near future

Any questions?

[Emphatically]
Thank you!