AlphaCoders

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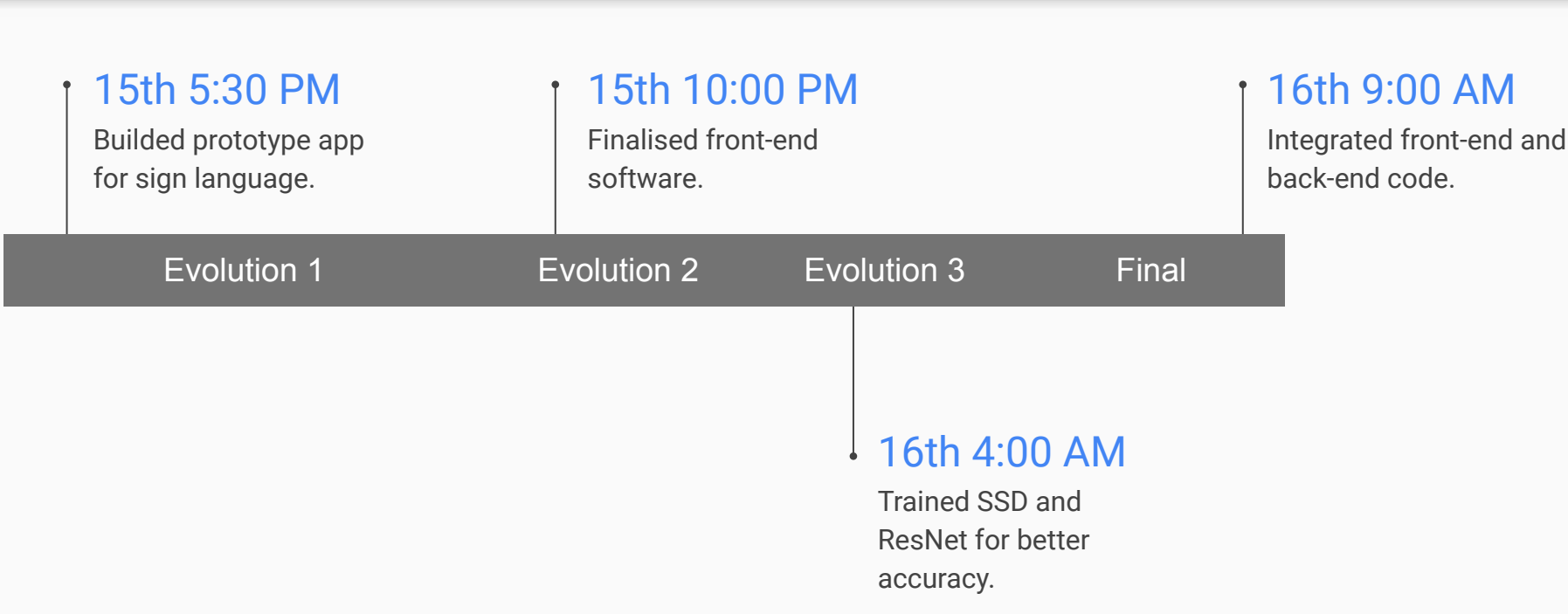
PS6: Smart Talking Gestures

Milestones


15th 5:30 PM
Builded prototype app for sign language.
15th 10:00 PM
Finalised front-end software.
16th 9:00 AM
Integrated front-end and back-end code.
Evolution 1
Evolution 2
Evolution 3
Final
16th 4:00 AM
Trained SSD and ResNet for better accuracy.

How it works

Step 1

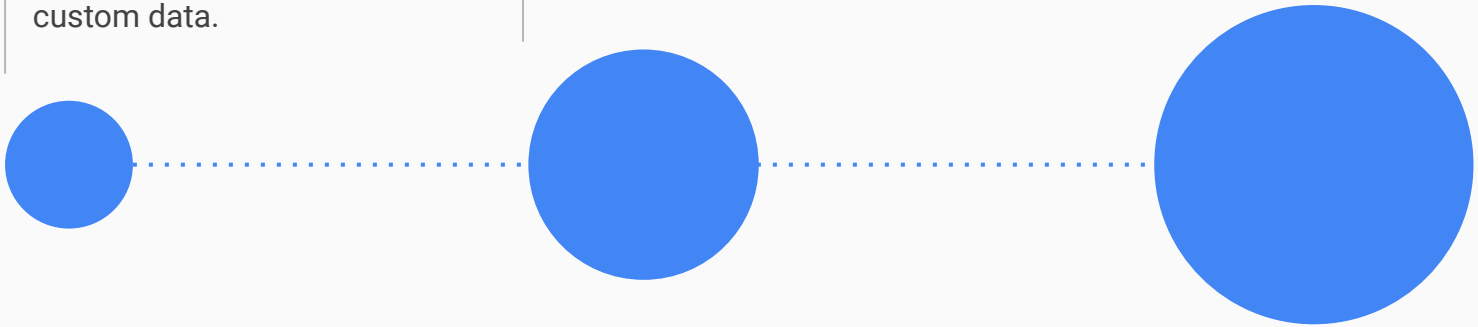
User inputs audio/gestures/new custom data.

Step 2

Largest hand detection and consequent gesture detection.

Step 3

Interoperability among vernacular languages.




The technology:
PyTorch, SSDv1,
ResNet, PyQt5

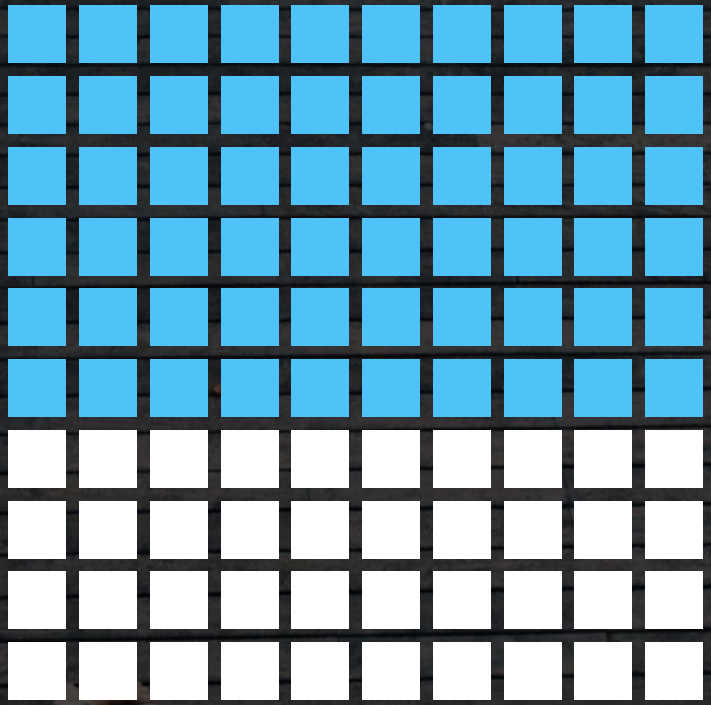
Pros of our app

fssdfssdf

- Vernacular language supported.
- **Works on complicated background.**
- Option to add new custom words very intuitively.

Future prospect:

- Motion gesture detection.
- Complete offline application.
- Platform independent deployment.



References:

- Single Shot MultiBox Detector by Wei Liu and et el.
  https://arxiv.org/abs/1512.02325
  https://github.com/qfgaohao/pytorch-ssd
- Deep Residual Learning by K He and et el.
  https://arxiv.org/abs/1512.03385
- FastAI by Jeremy Howard and et el.
  https://www.fast.ai/