Training Neural Networks on Embedded Devices

Targeting Embedded Environments

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Master's Thesis

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Outline

1 Introduction

2 Embedded Linux

3 Benchmark Applications
- Design
- Development
- Results

4 Discussion

5 Conclusion

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Neural Network Applications on Embedded Devices

Neural Network Applications on Embedded Devices

- Embedded Linux
- Federated Learning

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Build Systems

Yocto

Developing ARM Boards

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- Shown on the second and the third slide.

Shown on all slides.

You get fine-grain control over which elements are visible at each time.

Developing ARM Boards

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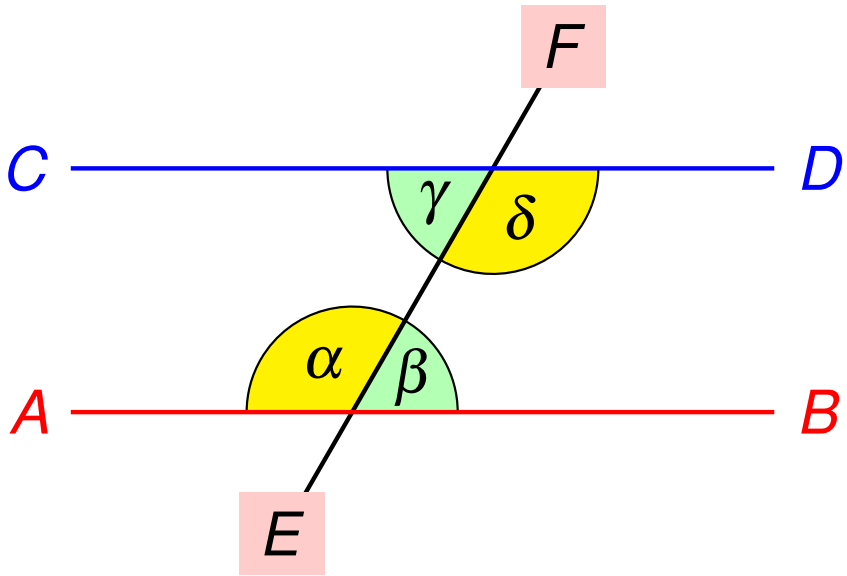
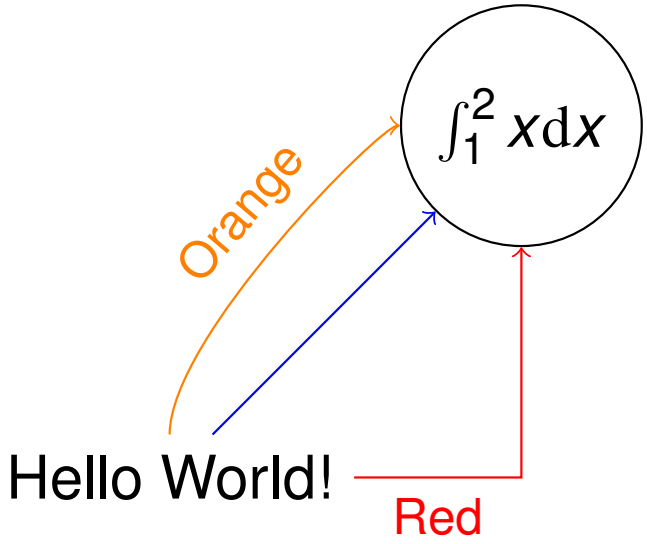
Using TikZ for Drawings





Applications

Different implementations

Learning Algorithm

Add the Algorithm

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C based HDR-NN

Add some code maybe

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Graphs

Figures

Development Experience

Development Experience

Reverse Engineering Efforts on the C300

Development Experience

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Future Work