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## **Final project report**

**Advanced Machine Learning**

Prof. Dr. Köthe

# **SIIM-FISABIO-RSNA COVID-19 Detection**

|                   |   |
|-------------------|---|
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| Field of Studies: | M. Sc. Applied Computer Science   |
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# 1 Introduction and problem definition

## 1.1 Kaeggle Challenge

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## 1.2 Related Work

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## 1.3 Proposed Solution

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just a short introduction to our solution, models will be convered in 3 on page 3

## **2 Data**

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### **2.1 NIH Data**

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### **2.2 RSNA Data**

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### **2.3 SIIM COVID-19 Data**

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## **3 COVID-19 Detection**

### **3.1 FasterRCNN**

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### **3.2 YOLO**

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### **3.3 Study-Level model**

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# 4 Evaluation

## 4.1 Evaluation of RESNET

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accuracy, f1, usw.

## 4.2 Evaluation of FasterRCNN and YOLO

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## 4.3 Evaluation of Study-Level Model

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# 5 Conclusion

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# References

- [1] L. Wang, Z. Q. Lin, and A. Wong, “Covid-net: A tailored deep convolutional neural network design for detection of covid-19 cases from chest x-ray images,” *Scientific Reports*, vol. 10, no. 1, pp. 1–12, 2020.