

Bayesian Optimization for Hyperparameter Tuning in The Fully Connected Layers of VGG16

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Abstract

1 Introduction

In this project a data-set has been constructed from several different sources [1, 2, 3, 4, 5, 6, 7]. For each country with at least one fatality due to corona the county's gross domestic product (GDP) per capita, population density per square kilometer, world region, average age, healthcare index, number of tourists per year in thousands and the population count has been collected. The purpose of the constructed model in this project is to classify whether the number of deaths in a country is low, medium, high or extreme.

2 Methods

Code available at github.com/sorenmulli/active_learning_cases

3 Results

4 Discussion

5 Learning outcome

6 References

- [1] Wikipedia contributors: "List of countries and dependencies by population density", Date of last revision: 22 March 2020 15:25 UTC. Visited at, https://en.wikipedia.org/w/index.php?title=List_of_countries_and_dependencies_by_population_density&oldid=946809073
- [2] Balaaje from Kaggle: "Coronavirus (COVID-19) dataset" with data from <https://www.worldometers.info/coronavirus/>. Visited at, <https://www.kaggle.com/balaaje/coronavirus-covid19-dataset>

- [3] World Population Review: "Countries by Median Age 2018". Visited at, <https://worldpopulationreview.com/countries/median-age/>
- [4] International Monetary Fund: "GDP per capita, current prices", ©IMF, 2019. Visited at, <https://www.imf.org/external/datamapper/NGDPDPC@WEO/OEMDC/ADVEC/WEOWORLD>
- [5] J. SnowLabs, Datahub.io: "Country and Continent Codes List" . Can be found at, <https://datahub.io/JohnSnowLabs/country-and-continent-codes-list>
- [6] Numbeo.com: "Health Care Index by Country 2020". Visited at, https://www.numbeo.com/health-care/rankings_by_country.jsp
- [7] World Economic Forum: "Travel and Tourism Competitiveness Index", © 2020 World Economic Forum. Visited at, <http://reports.weforum.org/travel-and-tourism-competitiveness-report-2019/rankings/>

7 Appendix