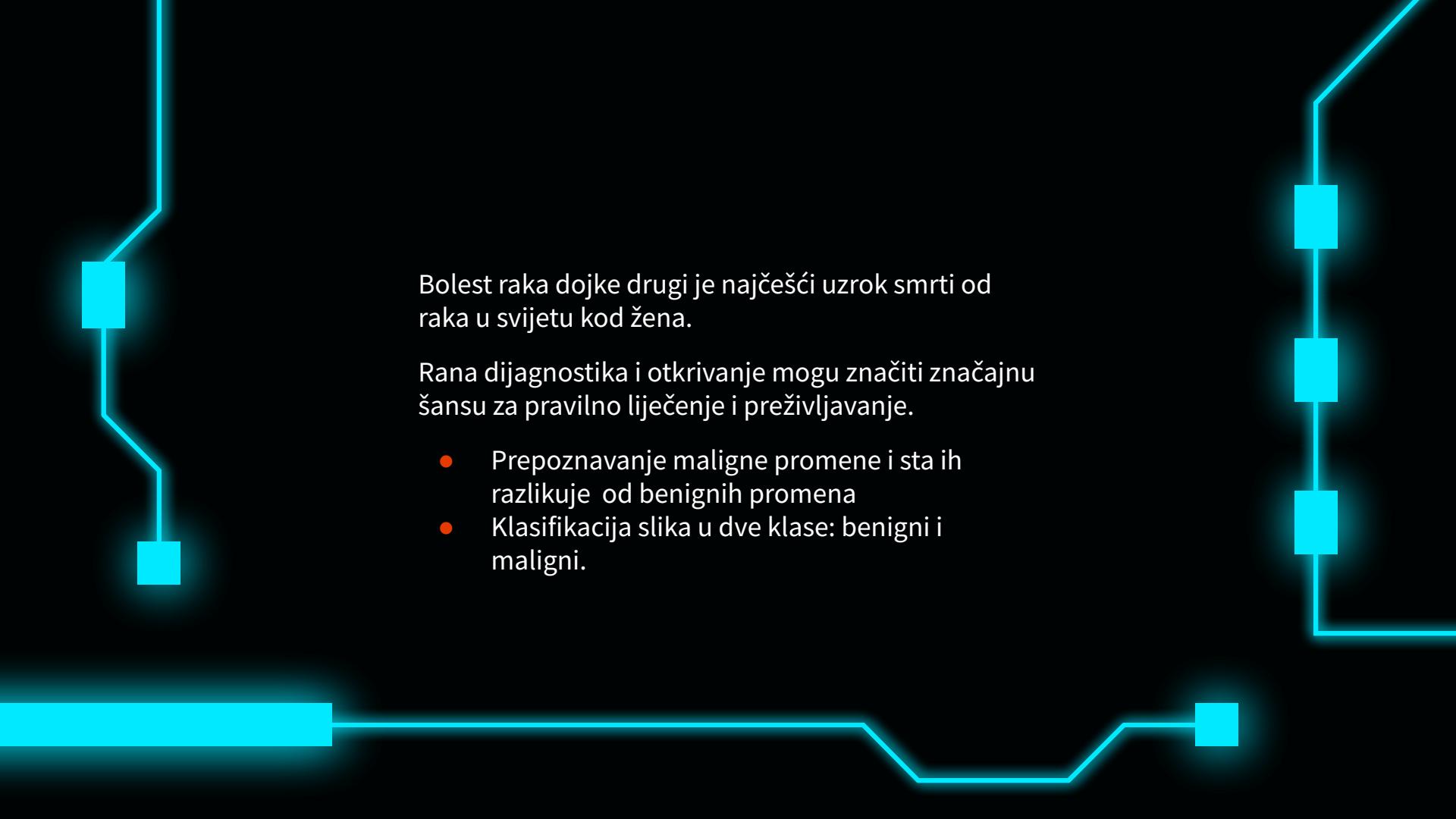


# Breast cancer detection using Convolutional Neural Network and Transfer Learning

Nikolina Lazarevic



# Opis problema



Bolest raka dojke drugi je najčešći uzrok smrti od raka u svijetu kod žena.

Rana dijagnostika i otkrivanje mogu značiti značajnu šansu za pravilno liječenje i preživljavanje.

- Prepoznavanje maligne promene i sta ih razlikuje od benignih promena
- Klasifikacija slika u dve klase: benigni i maligni.

# **Skup podataka (BreakHis)**

**Sastoji se od 9,109 mikroskopskih slika tkiva**

**2,480 benignih i 5,429 malignih uzoraka**



# Preprocesiranje



Augmentacija podataka sa Keras ImageDataGenerator klasom.

Transformacije:

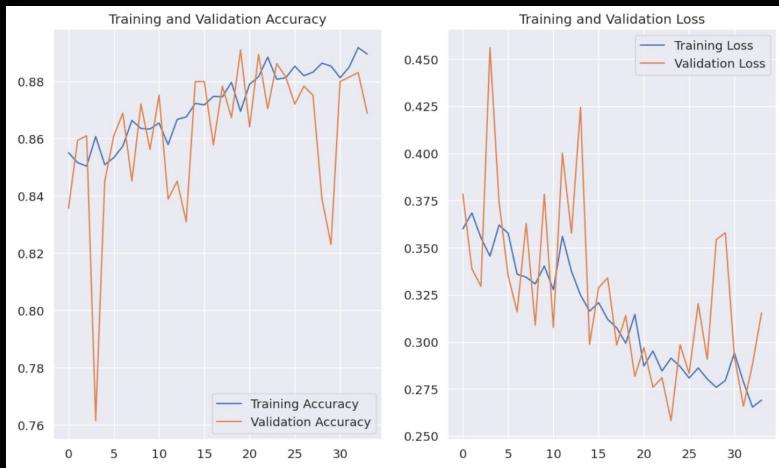
- Varijacije osvetljenja slike
- Zumiranje slike
- Slucajna rotacija
- Horizontalno i vertikalno pomeranje
- Horizontalno i vertikalno rotiranje

03

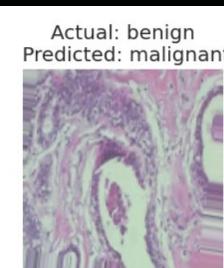
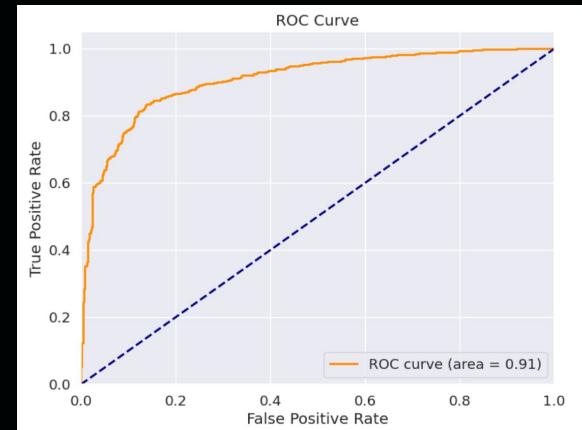
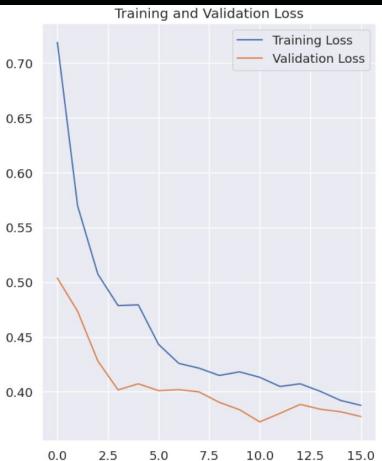
# Modelli

# Model zasnovan na CNN

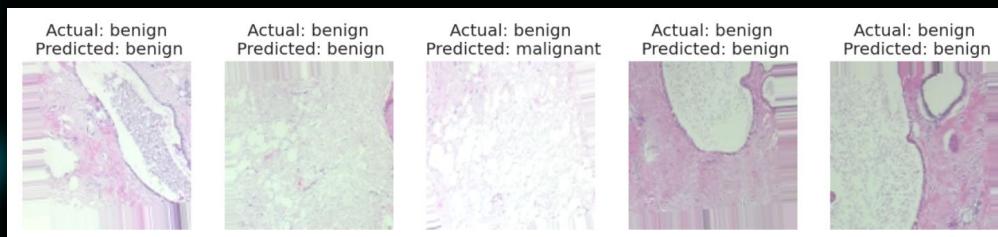
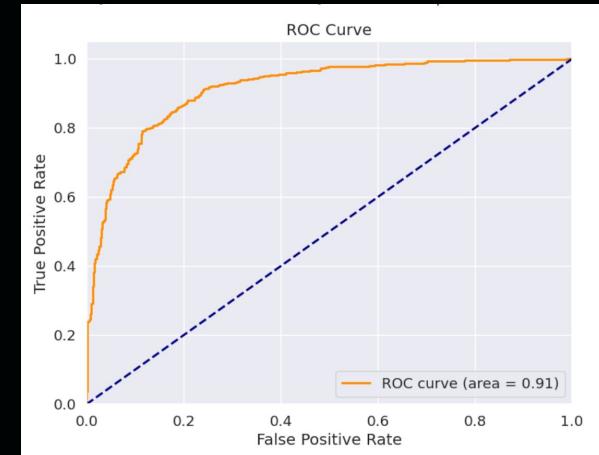
Sastoji se iz Conv2D, MaxPooling, Flatten i Dense slojeva.



# VGG16 Model



# VGG16 Model od Nule



# Hvala na paznji!

Pitanja?