

Strep Throat detection using Machine Learning

Matan Nachmuha & Yehuda Bitton

Advisor: Dr. Natali Levi

Research Impact

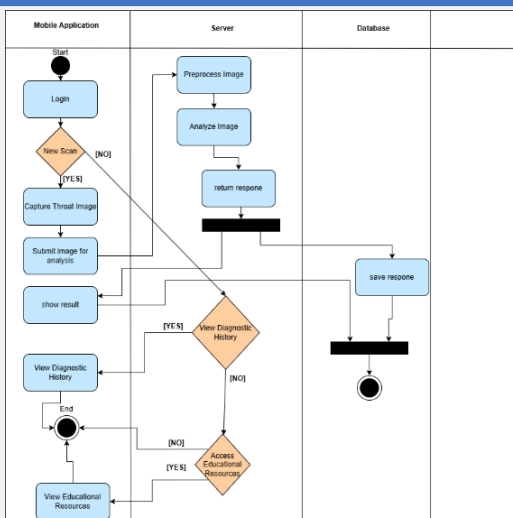
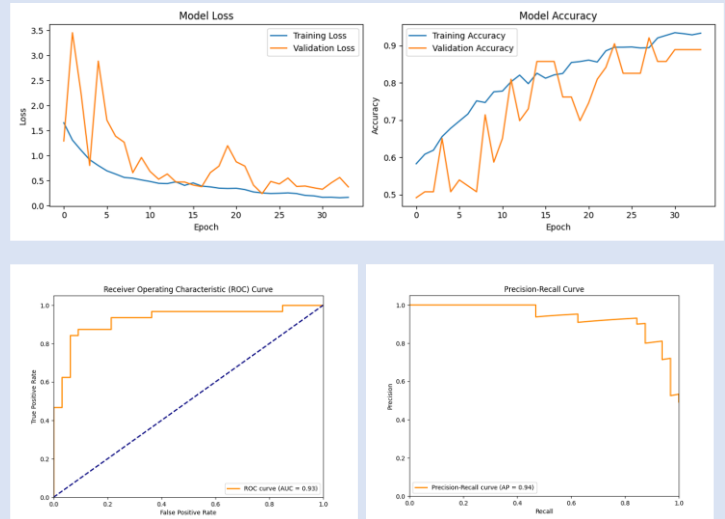
- Bridging Healthcare Gaps – SayAh is designed to assist remote and underserved areas with limited healthcare access.
- Early Detection – Helps users identify strep throat symptoms early, potentially reducing complications and improving treatment outcomes.
- Cost-Effective Solution – Reduces unnecessary doctor visits by providing AI-powered pre-screening, saving time and medical costs.

Future Improvements

- The application will be expanded to support iOS alongside Android.
- A larger dataset will be gathered to enhance model learning and improve accuracy.
- Symptom-Based AI Chatbot – Introduce an AI-driven chatbot that can analyze user-reported symptoms alongside image analysis, offering a more comprehensive diagnostic suggestion.

Model

- Convolutional Neural Network (CNN) was utilized for its efficiency in image classification tasks, particularly in medical imaging
- Dataset was very small (362 images in total) and imbalance - We did Oversampling for balancing the model and Data augmentation to rich the dataset.
- The data was split to Train (70%) Validation (15%) and Test (15%).



SayAh

