

## Business proposal

### **Problem statement:**

Hospitals are facing a critical shortage of healthcare workers, which affects the quality and efficiency of patient care. A CNN image classifier that can identify adults and children from images can help optimize the roles of existing staff by triaging patients and directing them to the appropriate services.

### **Background:**

Due to the severe lack of healthcare workers, including nurses, especially during the Covid-19 pandemic, hospitals are facing a crisis. According to Forbes, the healthcare industry is crumbling due to staffing shortages. Furthermore, the World Health Organization has stated that one of the key strategies to address this crisis is to optimize the roles of existing health workers through task shifting and delegation.

### **Proposal:**

Taking it into consideration, I propose an image classifier model that can recognize whether a person is an adult or child. This model can be applied in large-scale hospitals with the intent of optimizing healthcare workers' time and allowing them to focus on more important tasks than directing people. This image classifier model was designed to quickly and accurately direct patients to the appropriate departments and services within a healthcare facility. The system was trained on a dataset of people's faces, both children and adults of all ages and it was designed to be capable of co-learning and adaptation

### **Benefits:**

By using this image recognition system, hospitals can optimize their workforce and improve patient experience. Healthcare workers will be able to devote more time and attention to their core tasks, which will help to improve overall patient care. Patients and their families will experience less confusion and stress when navigating the hospital, making their hospital experience more manageable and less overwhelming.

There are other secondary benefits to the application of this model:

- Improved patient experience: By reducing wait times and directing patients to the appropriate departments and services, the system will improve the overall patient experience.
- Reduced costs: The system has the potential to reduce healthcare costs by improving efficiency and reducing the need for additional healthcare workers.
- Possibility to gather insights on patient flow and busiest hours, therefore optimizing it

## Conclusion

In conclusion, the healthcare industry is facing a critical shortage of healthcare workers, which has a significant impact on patient care. My proposal for an image classifier model that can recognize adults and children can help optimize healthcare workers' roles and improve patient experience by directing them to the appropriate services within a hospital. This system has the potential to improve the efficiency of healthcare services and reduce costs. By using this technology, hospitals can improve patient care and provide a better experience for patients and their families. Overall, the application of this model can help to address the current crisis in the healthcare industry caused by the shortage of healthcare workers.

## References:

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