






# Contribution Title<sup>\*</sup>

Avinash Kori<sup>1,2</sup>, Shashank Bansal<sup>2</sup>, Oscar Estaban<sup>2</sup>, Joe Wexlar<sup>2</sup>, and  
Russell Poldrack<sup>2</sup>

<sup>1</sup> Indian Institute of Technology (IIT), Madras, India [lncs@springer.com](mailto:lncs@springer.com)

<sup>2</sup> Dept. of Psychology, Stanford University, Stanford, USA

**Abstract. Keywords:**

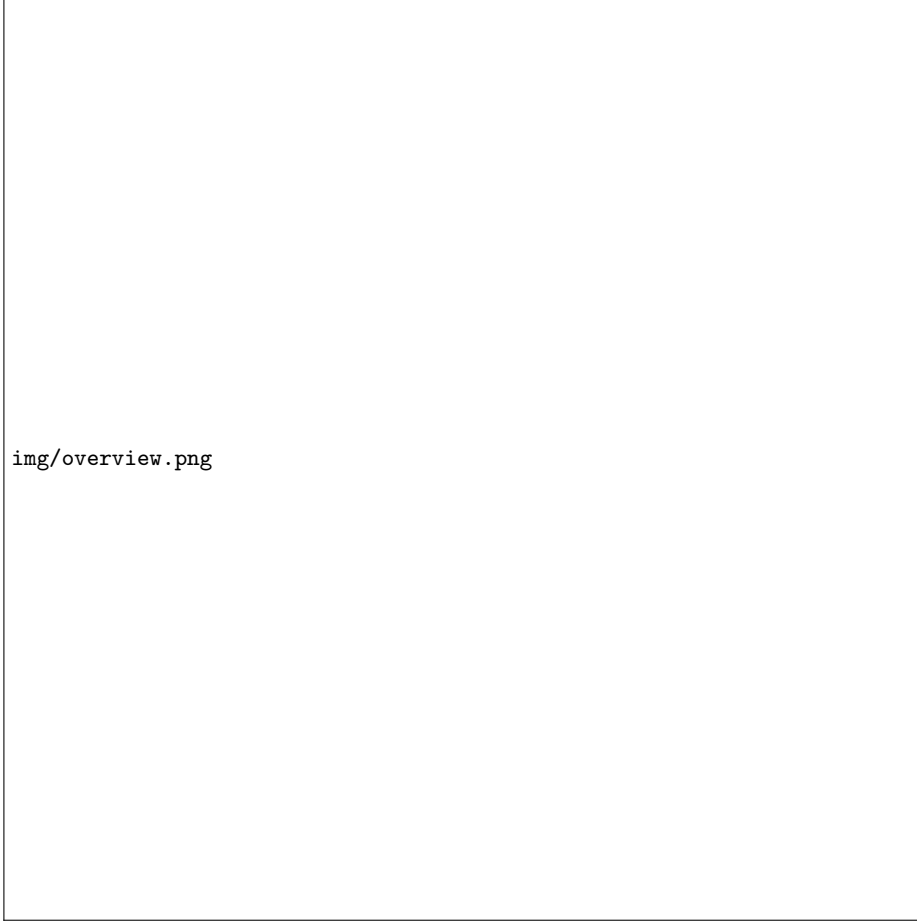
## 1 Introduction

---

<sup>\*</sup> Supported by organization x.

## 2 Materials and Methods

### 2.1 Overview



The Figure 2.1, describes the overall structure of our framework. The proposed framework detects if the given T1 weighted MR image is faced or defaced. Which in the process involves volume registration to a fixed atlas image, isotropic transformation to standardize the voxel size along all the axis, volume normalization to bound the range of input, followed by slice sampling, and prediction. We perform network analysis to qualitatively quantify the learning of the network using Gradient based class activation maps, and also estimate uncertainties on prediction to provide confidence bounds on the prediction.

## 2.2 Data

In this task we made use of vaarious openneuro datasets []. The classification groundtruths wer manually obtained **process discription**

In total 1236 volumes with 400 faced and rest defaced. The dataset was split into 3 sets to perform cross validation study.

### Cross Validation split

## 2.3 Pre-processing of Data

In terms of preprocessing of the data, volume registration, normalization, resizing, was performed.

### Volume Co-registration

### Augmentations

### Resizing and Re-normalization of Volume

### Slice Extraction

### Network Architecture

### Loss function

## 2.4 Training Pipeline

## 2.5 Inference Pipeline

## 2.6 Network Analysis

### Uncertainty Estimation

### GradCAM Analysis

### **3 Results and Discussion**