Project 1: Higgs Boson

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***Abstract*—The abstract should really be written last, along with the title of the paper. The four points that should be covered:**

1) **State the problem.**
2) **Say why it is an interesting problem.**
3) **Say what your solution achieves.**
4) **Say what follows from your solution.**

I. Introduction

The Higgs boson is an elementary particle discovered at the Large Hadron Collider at CERN in 2013. In order to produce it, physicists accelerate protons and make them collide at high speeds. The collision rarely generates a Higgs boson. A major problem that arises when scientists want to observe the particle is that its life is very short. Indeed, a Higgs boson quickly decays into other particles. For this reason, it is observed indirectly by looking at the outputs of its decay. However, this process can become tricky because a Higgs boson's decay signature can be very much alike another particle's signature. In this paper, a machine learning method that efficiently estimates the likelihood that a given measurement is due to a Higgs boson or some other particles is presented... ADD SOME DETAILS ABOUT THE METHOD HERE.

II. Methodology

III. Results

IV. Discussion

V. Summary