# Self-driving Cars: Ensuring Safety On The Road

Self-driving cars will be a part of our future and very important to our everyday life. In the next 5 years or less we will have fully self-driving cars. These cars are not your regular cars, they are explained in their name, they are cars that drive themselves after a destination is a set into its system. These self-driving cars have advanced technology which can be either sensors or cameras installed all around the car to guide the car around the streets of the country. So, my question is will self-driving cars be a part of our future and will they increase safety. Most people say yes to this question, but others have their own opinions. Self-driving cars will be a part of the future as they are the much safer, more convenient, and more affordable.

Everyone was to be safe when driving, and with self-driving cars that is possible. So far in the world autonomous cars have been proven to be very safe for the world as they can prevent and see mistakes human drivers would make and they can counter those mistakes to avoid an accident or any problems. Self-driving cars have my interest for one big reason which is safety. I have been in two car accidents, both which were another person’s fault. If the other person was driving a self-driving car or I was in a self-driving car, the computer would have recognized that a crash was about to happen due to what the other driver was doing. The accident could have been avoided easily if the other drivers were paying attention to the road and not their phones. So, in a self-driving car they could be on their phones and the accident would have never happened.

Self-driving cars are becoming more and more of a reality, there are many self-driving cars being driven around the world now like regular cars, they aren't rare anymore. Hackers can get into the self-driving cars system and control what the car does and make it do random things, like turn off the lights, turn them on, turn the car or even make it be in an accident if they hacker is very malicious. That is what makes them super dangerous in some scenarios. Self-driving cars are becoming more common every day and the security concerns are high as the whole car is basically a computer that can be hacked at any time by hackers. So, I think with this topic I will be able to find good sources that will help me find out more about the security concerns of self-driving cars and what problems they have.

Something else to think about is that car accidents take the lives of more than 10 thousand people every year. (IIHS 2017) In an article I read, 94% of accidents are due to human error and the accidents can be deadly. Self-driving cars can prevent all the human error accidents which can save so many lives and prevent so many crashes. Autonomous cars are proven to be safer with a bunch of test and statistic behind it, which is great for the world. In the graph below that I got from the Insurance Institute for Highway Safety (IIHS 2017), you can see the number of car accidents that happen from the years of 2014 to 2017 and just look at the number of deaths that occur every year. The only way to lower this number is to have self-driving cars because they can prevent what a human cannot, an accident. Earlier this year I was involved in a bad car accident, which should’ve left me dead or severely hurt and the accident was due to another human’s error which could have been prevented easily if the driver was paying attention. But with self-driving cars we won’t have to worry about car accidents that could easily be prevented as the technology is very advanced and meant to keep us safe. A lot of rideshare apps like Uber, Lyft and other various apps will create their own self-driving cars to make life

easier for us. These apps are certain that within the next couple years they will have their own self-driving cars which will be very cheap and easy to use and will eliminate encourage users to use this app instead of owning/using their own car. Rideshare apps are going to become cheaper as the new cars are created as the new cars will be very energy efficient and don't have a driver, as they're self-driving. (Wile) The cost of owning a car for the last 4 years is around $8,400 to $8,696 a year, and the cost of using Uber or Lyft is around $13,000 a year. Right now, owning a car makes sense as it is cheaper, but as the new self-driving cars are introduced prices will become significantly cheaper for these rideshare apps and the average cost will come down to about less than $6,000 a year. Car Ownership also comes with other problems such as what if you are in an accident, that will make put you at loss, but you will not have to worry about that with rideshare apps as the self-driving cars technology is safer than regular cars and are human error free.

Having rideshare apps that include self-driving cars are a great and cost friendly. It will become much easier for us to get around in a cheaper way. We will not have to worry about driving, stopping for fuel, or maintaining a car. With owning a car, you have to worry about depreciation, fuel, insurance bills, finance charges, taxes, registration, and much more. All this stuff adds up, and owning a car doesn't always go well, you can get into an accident or something can randomly break on you when you're not expecting it and that could cost you even more money. It is just a very big hassle that can be avoided in the future with much cheaper options. For instance, all you would have to do in the future is just open an app on your phone and tell it where you want to go and the car will come and take you there, you won't have to worry about anything

Most people will agree with the idea self-driving cars will be the future but there are some people who do not. People will say self-driving cars are just computers and very stupid because we would not have control over it. Or they will say we do not have the technology and safety precautions to go through with fully self-driving cars. In an article I read it mentions how self-driving cars are not ready for the streets as they are a fairly new technology which has not been tested enough and is nowhere near perfect. (Miller & Valasek 2018) It mentioned an accident that occurred in a Telsa Model S, which is a semi-autonomous car that is very commonly seen on the road everywhere nowadays and how a 40-year-old man was killed due to computer not recognizing another car that the car hit while it was in its self-driving mode. Many people agree with the those who say self-driving cars are not ready for the streets as there has been a minimal amount of self-driving accidents and other problems self-driving cars currently have.

But self-driving cars will save so many lives compared to the number of lives we lose every year due to car accidents. We will be safer on the streets and there will be over 10,000 lives saved every single year because of the technology new self-driving cars are being given. They are smart, accurate, and never distracted by random things humans would be distracted by. They prevent everything humans cannot, and they will be needed in the future and will be in the future. Self-driving cars are our only way to save the lives of our loved ones and many others that are involved in car accidents every day. So, in the future we will have self-driving cars, they will be cheap, convenient, and much safer than any type of car we have today.