



Autonomous Driving For Highway Trucks Will Change The Way Freight And Goods Are Delivered



Xiaodi Hou
CTO, Co-Founder

TuSimple
www.tusimple.ai

Contact:
Jake Stevens
947 987 8919
jake.stevens@tusimple.ai

Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine

“One of our slogans is that we are really working on the *product*. We’re not making cool videos of trucks; we’re making an actually safe, reliable, real autonomous truck.” - Xiaodi Hou

CEOCFO: *Mr. Hou, what is the idea behind TuSimple?*

Mr. Hou: The idea behind TuSimple is that we are thinking that Autonomous Driving is going to be a big future development in society. We are a bunch of computer vision and machine learning experts and we really wanted to do something big, so we started to think of Autonomous Driving. If we go into Autonomous Driving, we find that there are several core challenges that also need to be solved using computer vision and machine learning. Therefore, we are focusing on solving those core problems to an extremely high degree of accuracy. What this really means is that TuSimple is creating the core technology for a self-driving truck.

CEOCFO: *Should we not start with cars first? Does it matter that trucks are bigger and heavier and may be more difficult to drive - or is that more reason why we need TuSimple?*

Mr. Hou: It is difficult to drive for humans, but for computer vision it is basically that we are solving the same problem as sedan-type car driving. The only exceptions are that in highway driving the braking distance is longer and therefore we need to keep further away from cars in front of you, and some of the sensors may be invalid at this moment; for example, the Lidar sensors as you might or might not know, which is a laser beam-based sensing technology, and is quite prevalent in most of the existing solutions for town driving, is not ready for highway long distance sensing. Therefore, we are inventing everything by ourselves. We are basically using camera-based solutions to do Autonomous Driving.

CEOCFO: *Have there been other attempts to look at the truck industry or are you the first to realize the potential?*

Mr. Hou: I think we are one of the earliest. We know that Otto is doing something. Last June they announced that they are going to have a truck fleet set up for Autonomous Driving, but I think it is kind of like an independent thing to us. That is because we started earlier; as early as the beginning of last year, focusing on highway driving for Autonomous trucks. After three months we started working on that problem, but then we saw there was another company claiming that they are doing the same thing. Therefore, I think I could safely say that we are among the world’s first bunch of people seriously doing this thing.

CEOCFO: *What have you learned so far? What surprised you as you have started to work on the concept?*

Mr. Hou: There are several things. On the management level, before doing a startup I was doing research at the California Institute of Technology. The situation would be like, “Okay, I am a single person. I will solve the problems by myself.” At that time, what I was doing was maximizing my own output. However, here in a company, what I am doing is maximizing two things. One is how to spend money efficiently. For example, if I am given a five million dollar budget for a year, how do I spend all that money efficiently? If I do not spend all the money efficiently that is my fault. If I do not spend