

## **AutoDrive Project Weekly Report - October 26th**

### **1. Fails of the week**

- Software: Gave up CARLA for simulation

### **2. Successes of the week**

- Software: As a replacement for CARLA, we've installed a Udacity simulator along with TensorFlow for building our deep learning model and running car simulation
- HF: Made great progress on acceleration research and have an experiment designed to get hard numbers where industry guidelines are lacking

### **3. Difficulties this week**

- Software
  - CARLA currently lacks support for Mac installation
  - The CARLA visual renderer (Unreal Engine) requires at least a 2.5 Ghz processor, but Phoebe's computer only has a 1.6 Ghz Intel core
  - We might face the same hardware constraint in the future if the simulation needs to run on the GPU
- Poring through research papers

### **4. Goals for next week**

- Research into current works/projects related to applying deep neural networks or reinforcement learning to self-driving technology
- Set up the model training environment and runs a preliminary version of the model that generates some dummy simulation in the Udacity simulator
- Conduct experiment on vertical acceleration using smartphone accelerometer at speed bumps and draft formal write-up of this research component