CSCE 698: Research Seminar

2d Lt David Crow

ENG/20M

Enev, M., Takakuwa, A., Koscher, K., & Kohno, T. (2016). Automobile Driver Fingerprinting. *Proceedings on Privacy Enhancing Technologies*, *2016*(1), 34–50. <https://doi.org/10.1515/popets-2015-0029>

In 2016, Enev et al illustrated that every driver possesses a unique fingerprint of their driving behaviors. Essentially, when and how one brakes, the rate one turns the steering wheel, one’s use of the turn signals – all are factors that contribute to the particular data stream generated by a given driver. However, after conducting their experiments, Enev et al conclude that individual drivers can be identified by just one factor: the brake pedal. In fact, the brake pedal alone, when given sufficient training data, can achieve perfect accuracy in fingerprinting drivers; when the size of the dataset is small, reading solely the brake pedal data achieves 87% accuracy, and reading the data of multiple sensors again achieves perfect accuracy. This research, then, seems to indicate that the quality of the gathered data is not necessarily more important than the quantity of said data.