**Description of the project:**

Autonomous driving, which has the potential to impact the driving experience and improve road safety, is an application of artificial intelligence in the automotive industry. Recognition and tracking the objects in the driving environment are crucial tasks for an intelligent vehicle. Object recognition and tracking rely on different types of sensors. Cameras provide detailed information on lighting, edges, and colors but are not accurate for 3D localization. On the other hand, range sensors, such as radar and lidar, contains highly accurate location information. The point-data from range sensors contains less semantic information, is corrupted with clutter and highly sparse. These factors impose many technical challenges on object tracking systems. The overall goal of this project is to develop efficient and accurate tracking algorithms using automotive radar. This project aims to complete and improve the existing tracking framework by investigating a tailored data model for automotive radar data.

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