Investigation of Rocket Signatures Collected by Smartphones

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Abstract:

This work presents an initial investigation of signatures collected during launches of SpaceX (Falcon 9, Falcon Heavy) and Atlas V rockets and begins identifying and annotating unique features of the launch, trajectory and chronology. The aim is to develop a capability to rapidly identify missile delivery systems. Our team uses data collected by smartphones containing multi-modal sensors (including microphones, accelerometers, and gyroscopes) to identify unique features of rocket launch stages that can be used for signal classification ML studies.