Kevin Gomez Buquerin

I am a PhD candidate for automotive digital forensics at the Technical University Ingolstadt (THI) and Friedrich-Alexander-University Erlangen-Nürnberg (FAU) in Germany. My supervisor is Prof. Dr.-Ing. Hans-Joachim Hof (THI) and my doctor father is Prof. Dr.-Ing. Felix Freiling (FAU).

I got my B.Sc. in computer science for automotive and avionic systems. I received my M.Sc. in computer science. Both at the THI.

My main research areas are implementation of new methods for extraction and analysis of digital evidence in modern and future automotive systems. I approach automotive digital forensics in a general way. My generalized methods solve different research challenges in the area of automotive digital forensics.

I made four contributions so far.
1. "*A Generalized Approach to Automotive Forensics*" published at "DFRWS EU 2021". We present a methodology for conducting digital forensic investigations on modern vehicles. We have performed such an investigation on a modern vehicle, analyzing the communication between an analysis computer and the vehicle via DoIP and UDS.
2. "*Überwachung in modernen Fahrzeugen*" published in "Datenschutz und Datensicherheit - DuD Volume 45". This work was published in a German journal. We presented that modern vehicles are highly connected to cloud services. We also conducted a digital forensic investigation of a Tesla Autopilot and highlighted the challenges in assessing the level of data protection.
3. "*Structured methodology and survey to evaluate data completeness in automotive digital forensics*" published at "19th escar Europe". In this paper we present the results of a survey and a methodology to analyze a research area in a structured way. Various experts from the fields of "digital forensics", "vehicle security" and "vehicle development" were interviewed. The result was a complete list of data formats and tools that are highly relevant in automotive digital forensics investigation.
4. "*Identification of Automotive Digital Forensics Stakeholders*" published at SECURWARE 2021. This paper shows a list of stakeholders that are of high importance for automotive digital forensic investigations. The stakeholders are compared with each other. Similarities and differences are highlighted. Furthermore, their position in the vehicle life cycle and forensic issues are presented.