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## xAI –Is This the Future of AI-Software Testing?

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AI is leaving its marks everywhere in the industry. One important question is how to integrate AI-based software in security-critical environments such as autonomous driving and modern medicine applications. The AI must perform robustly and safely. To ensure this, software that contains AI components must be tested thoroughly, which is not a trivial task: On the one hand, classic software testing methods cannot be applied due to the “black-box” nature of most AI-algorithms. On the other hand, in many cases regulations concerning AI-testing have yet to be defined. One cornerstone of AI-testing could be explainable AI (xAI). It helps software developers to understand the decision-making process of AI-algorithms which is fundamental for a trustworthy AI. In this talk, we give a summary of visual xAI methods. We then show how we implemented these methods in a specific use case. <br>

<h1>Bio</h1>

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<p><strong>Khanlian Chung</strong> is a Senior Software Development Engineer at Vector. He is responsible for integrating AI-features in Vector software testing tools. The focus of his work is how AI-based software can be tested and secured. Khanlian Chung graduated in Physics at the Technical University of Kaiserslautern. As a PhD student and Postdoc at Heidelberg University, he investigated how AI can improve diagnostic and interventional imaging for cancer patients. Vector Informatik is the leading manufacturer of software tools and embedded components for the development of electronic systems and their networking with many different systems from CAN (Controller Area Network) to Automotive Ethernet. Vector tools and services provide engineers with the decisive advantage to make a challenging and highly complex subject area as simple and manageable as possible. Worldwide customers in the automotive, commercial vehicles, aerospace, transportation, and control technology industries rely on the solutions and products of the independent Vector Group for the development of technologies for future mobility.

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