On the Use of Available Testing Methods for Verification & Validation of AI-based Software and Systems

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• V&V of systems comprising AI technology seems not to be that easy
  • Huge software stack involved
  • Machine Learning applications
• Have to consider in addition:
  • Faults due to untested interactions among system components
  • Missing testing guarantees
  • Not considering "all" critical inputs and scenarios
Focus on discussing questions

• What are existing automated testing techniques that can be used in the context of (autonomous) AI-based systems?

• What are (other) shortcomings we have to deal with?
  • How to assure that a used test suite is good enough?
    • Can we use coverage or mutation score?
  • How can we prevent faults leading to a disaster?