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Innovation Infosheet

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Efficient Automatic Differentiation of Higher-Order Functions

Track Code: 2019-SISK-68524

Categories:

- Computer Technology

Keywords:

- AI
- Computer Technology
- Machine Learning
- Software

Researchers at Purdue University have developed methods of Automatic Differentiation (AD) to be applied to both rigid computations and arbitrary computer programs. This technology greatly increases the efficiency of these processes while also reducing the amount of required computer memory, allowing for more complicated deep learning systems.

Advantages:

- -Efficient
- -Versatile

Potential Applications:

- -Application Programmers
- -Machine Learning
- -AI

People:

- Siskind, Jeffrey M (Project leader)
- Pearlmutter, Barak Avrum

Intellectual Property:

Application Date: October 28, 2021

Type: NATL-Patent

Country of Filing: United States

Patent Number: (None)
Issue Date: (None)

Application Date: April 29, 2020

Type: PCT-Gov. Funding Country of Filing: WO Patent Number: (None) Issue Date: (None)

Application Date: April 29, 2019

Type: Provisional-Patent

Country of Filing: United States

Patent Number: (None)
Issue Date: (None)

Application Date: (None)

Type: NATL-Patent

Country of Filing: Europe Patent Number: (None) Issue Date: (None)

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