Making a Splash: AI Can Help Protect Ocean Goers From Deadly Rips

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Surfers, swimmers and beachgoers face a hidden danger in the ocean: rip currents. These narrow channels of water can flow away from the shore at speeds up to 2.5 meters per second, making them one of the biggest safety risks for those enjoying the ocean.

To help keep beachgoers safe, Christo Rautenbach, a coastal and estuarine physical processes scientist, has teamed up with the National Institute of Water and Atmospheric Research in New Zealand to develop a real-time rip current identification tool using deep learning.

On this episode of the NVIDIA AI Podcast , host Noah Kravitz interviews Rautenbach about how AI can be used to identify rip currents and the potential for the tool to be used globally to help reduce the number of fatalities caused by rip currents.

Developed in collaboration with Surf Lifesaving New Zealand, the rip current identification tool has achieved a detection rate of roughly 90% in trials. Rautenbach also shares the research behind the technology, which was published in the November 22 edition of the journal Remote Sensing.

Art(ificial) Intelligence: Pindar Van Arman Builds Robots That Paint Pindar Van Arman, an American artist and roboticist, designs painting robots that explore the differences between human and computational creativity. Since his first system in 2005, he has built multiple artificially creative robots. The most famous, Cloud Painter, was awarded first place at Robotart 2018.

Real or Not Real? Attorney Steven Frank Uses Deep Learning to Authenticate Art Steven Frank is a partner at the law firm Morgan Lewis, specializing in intellectual property and commercial technology law. He's also half of the husband-wife team that used convolutional neural networks to authenticate artistic masterpieces, including da Vinci's Salvador Mundi , with AI's help.

GANTheftAuto: Harrison Kinsley on AI-Generated Gaming Environments Humans playing games against machines is nothing new, but now computers can develop games for people to play. Programming enthusiast and social media influencer Harrison Kinsley created GANTheftAuto, an AI-based neural network that generates a playable chunk of the classic video game Grand Theft Auto V .

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