

Preventing Rhino Poaching through Machine Learning

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ABSTRACT

Official figures in Africa indicate that 1,349 rhinos were killed in 2015. This marked the most critical moment of the current rhino poaching crisis that began in 2008. This trend has since reversed to the minimum of 1,124 poached rhinos achieved in 2017. Although this brings hope, this emergency is still a formidable challenge that needs to be tackled from a multi-angle approach including anti-poaching collaboration among countries to enforce effective wildlife crime laws, target campaigns in the illegal horn rhino end-user countries like China and Vietnam, and the adoption of cutting-edge technology by governmental agencies and conservationist NGOs.

In this talk, we will highlight the recent efforts of Peace Parks Foundation (PPF), the advocate for the creation of transfrontier conservation areas in South Africa, and Microsoft to address this crisis. We will explain how, through the joint use of deep learning and Cloud, PPF and Microsoft developed a fast and accurate potential poacher detection solution that allows PPF to allocate the park resources in a smarter and more efficient manner.

BIOGRAPHY

Olga Liakhovich is Data and Applied Scientist at Microsoft and worked on a variety of Microsoft products including SQL Server Analysis Services, Office 365, Azure Machine Learning. Currently, Olga is in Commercial Software Engineering organization, follows the passion of practical application of ML while enabling Microsoft partners to tackle their dream projects. Olga's interests are specifically in the "AI for Good" areas and

application of digital transformation in various areas of critical importance to our world: global climate issues, sustainable farming, biodiversity and water conservation, just to name a few.

Gabriel Domínguez Conde is a Data and Applied Scientist at Microsoft. He received his Ph.D. degree in telecommunications engineering from the University of Vigo, Vigo, Galicia, Spain in 2016. He worked at the Signal Theory and Communications Department in the University of Vigo from 2008 to 2016 as an Associate Researcher. He visited the Department of Electrical and Computer Engineering at Texas A&M University in 2010, USA. Since 2016, he has held several positions in the industry as a Research Scientist in the UK. His interests include deep learning, machine learning, signal processing, and information forensics and security. He has co-authored several international patents related to forensics for video surveillance, device identification, and spatial behavior fingerprinting.



Olga Liakhovich



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