Note: please click on **project headers** - they are direct links

ALEXANDER TEDESCHI | PORTFOLIO

Brooklyn, NY | 518-918-1954 | sasha.tedeschi@gmail.com

FUBAR

Uber – 2019

A computer vision project that originated at Berlin's DSR, Fubar combines transfer learning using Inception V3 with the YOLO object detection framework to solve a classic micromobility problem: improper parking. The model classifies images of locked and unlocked bikes with an accuracy of 97%.

JUMP Operations

JUMP bikes – 2018

Under the traditional bikeshare model, people park bikes in designated docks around the city. When ushering in dockless bikes, it's a double-edged sword – consumers have the flexibility to park bikes where it's most convenient, but without a dock, they need hyper-granular location information to find a bike. This map-based visualization is the product of my work as the lead GIS developer at JUMP

The History of GULAG

Urbica – 2018

Interactive map and information portal that displays the historical development of the GULAG labor camps from inception to end of operation. In cooperation with the research department and the curatorial and technical team of the museum, we have created a product where high technology, history, and social significance are intertwined.

Age of Agglomerations

Urbica – 2017

What is an urban agglomeration? It is the concentration of people in built-up areas that extend outward from cities. As this process unfolds, complex relationships develop between different parts of the city due to the movement of goods and people, including traffic and commuting patterns. To better understand the process of agglomeration, we collected various data and integrated them into one data exploration tool.

Erasmus Mundus Association

Volunteer cartographer – EMA – May 2017

Created the first map-based database and search tool for Erasmus Mundus graduate courses and locations using the Mapbox GL library.

Rebalancing Citibike

Urbica – April 2016

Visualization of Master's coursework in Geospatial Technologies using Mapbox GL and D3. This study analyzes over 10 million trips taken in New York City between 2012-15 and focuses on a few of the most intractable problems that any robust bikeshare network faces: rebalancing stations so that they are neither full nor empty, and bike availability.

Circle of Life

National Geographic (Russian Issue) – June 2016

This article focused on the reindeer migration in the Taimyr Peninsula. Migration is a difficult task. Behind every new migration cycle there are new obstacles: turbulent rivers, inclement weather, and predators. Far more dangerous, however is for reindeer to stop moving. These roamers of the north have been able to outlive their contemporaries – mammoths and wooly rhinoceros – in part due to their constant movement.

Using R to Map Crime Density in Boston

University of Münster, 2015

As a social phenomenon, crime has intrinsic geographic qualities. At the beginning of the 2000s, the city of Boston experienced a significant uptick in crime rates relative to the previous decade. The current study serves to both update and supplement the geographical component of crime analysis in Boston by making use of the demographic data from the 2010 U.S. Census and a comprehensive crime incident database.

Shrinking of Lake Urmia, Iran

University of Münster, 2014

At its full extent, Lake Urmia is the sixth largest saltwater lake on earth with a surace of approximately 5,200 km2. The lake has been rapidly shrinking for the past several decades due to drought, climate change, and poor water resource management. The objective of this study is to determine the extent of land cover change in the last three decades.

Topography of Terror

NextGIS and Memorial – August 2014

Topography of Terror serves to inform people today – whether amateur historians, victims' relatives, or simply citizens who want to know the truth – by mapping the locations of sites associated with state repression.

Imperiia

Harvard University, Department of History, 2013

This research project, directed by Dr. Kelly O' Neill at Harvard University, makes available a series of annotated datasets and historical maps related to the physical infrastructure, demographics, culture, and economy of the tsarist state.