

Bronya Roni Chernyak

LinkedIn : www.linkedin.com/in/roni-chern

chernroni@gmail.com
+972(0)54-5801805

FIELDS OF INTEREST

Machine Learning, Deep Learning, Machine Learning Security, Speech Processing and Recognition.

EDUCATION

Bar-Ilan University

- **Ph.D. Computer Science** **2020 - Present**
Research Topics: Adversarial Robustness, Speech Synthesis and Interperatability
Advisor: Prof. Joseph Keshet
- **M.Sc Computer Science** **2018 - 2020**
Dissertation: Improving Adversarial Robustness Of Deep Learning Algorithms
Advisor: Prof. Joseph Keshet
- **B.Sc Computer Science and Neuro-Science** **2015 - 2018**

PUBLICATIONS

- **Constant Random Perturbations Provide Adversarial Robustness with Minimal Effect on Accuracy - Chernyak Bronya Roni, Joseph Keshet**
Under submission to ICML 2021
- **Kalman Filter for Adversarial Noise Removal - Chernyak Bronya Roni, Joseph Keshet, Satoru Momiyama**
Under submission to Interspeech 2021

PROJECTS

Identifying Creacky Voice in Fluent Speech **October 2018 - Present**

Designed and implemented an algorithm for detecting a special type of phonation called creacky voice using fully connected deep network, and convolutional neural network.

- **Tools & Technology:** Speech Processing and Recognition, Pytorch, Praat, STFT, Deep Neural Networks (CNN and others).

Detecting Wild Animals In Videos **April - July 2018**

Created an algorithm for real-time tracking of wild animals in videos, and detecting two types of their behaviours. The algorithm was based on YOLO (CNN) and granted an automated analysis of hours of video recordings.

- **Tools & Technology:** Darknet framework, Yolo, Object Detection, Python, C.

Neurons Unsupervised Classification **July - October 2017**

The project's goal was to classify neurons in an objective way, without human interference. To model the problem, I used unsupervised learning setting with the appropriate algorithms.

- **Technology & Algorithms:** DTW, K-Means, PCA, Scikit Learn.

WORK EXPERIENCE

Teaching Assistant **2020-2022**

Advanced Topics In Machine Learning

Software Developer at IMDSoft **2013 - 2014**

C#, .Net 4.5 & SQL Server 2014, WPF, TFS 2014

Full Stack Developer at IDF **2011 - 2013**

C#, .Net 3.5 & SQL Server 2010, WPF, TFS 2010, WinForms

**TECHNICAL
SKILLS**

Languages: Python, C#, C
Database: SQL Server
Familiar With: Java, Matlab, Javascript, HTML, CSS, C++