OANA IGNAT

Interested in applying science to help create a better world

@ oignat@umich.edu   % https://oanaignat.github.io/   📍 Ann Arbor, MI, USA

EDUCATION

Ph.D. Candidate
University of Michigan, Ann Arbor, USA

📅 09/2017 - 08/2022 (expected)

- Research on **multimodal (text & video)**, with a focus on **human actions in social media vlogs (videos with speech)**
- Advised by Rada Mihalcea
- Member of the Language and Information Technologies Lab
- Member of the Center for Research on Learning and Teaching in Engineering
- Organizer of the NLP Reading Group

B.S. Computer Science
Babes-Bolyai University, Cluj Napoca, Romania

📅 10/2013 – 07/2016

- Collaborated with Robert-Bosch SRL for **my undergraduate thesis**, which won multiple prizes and was successfully **applied in real-world applications**.
- Won the **Best Thesis award in Artificial Intelligence** for the entire class of 2016 undergraduate and graduate students.

INDUSTRY EXPERIENCE

Research Intern
Facebook (FAIR)

📅 05/2021 - 08/2021   📍 Remote

- Mentored by Paco Guzman
- Analyzed OCR errors in MT for low-resource languages.

Facebook (FAIAR)

📅 05/2020 - 08/2020   📍 Remote

- Mentored by Alon Halevy and Y-Lan Boureau
- Detected Inspiring Content on Social Media (Reddit and Facebook posts).

Image Processing Engineer
Telenav Software

📅 08/2016 - 08/2017   📍 Cluj Napoca, Romania

- 3D reconstruction of scenes using structure from motion.

AWARDS

🏆 **Best Poster award in Eastern European Machine Learning summer school (EEML), July 6th, 2019**

☆ **2017-2018 Fulbright Student Award Finalist**

🎓 **Best Thesis award in Artificial Intelligence for the entire class of 2016 graduates at the "Babes-Bolyai" University, Cluj-Napoca. Awarded by the Romanian Institute of Science and Technology, July 1, 2016**

🎓 **"Scientific Communication Sessions for Students" Cluj-Napoca, June 16, 2016 – Second place**

🏆 **2016 Jane Street "Women in STEM" Finalist**

🏆 **Over the years I took part in over 60 Mathematics competitions, such as:**
- **National competition in Mathematics "Euclid" 2013 – 1st prize**
- **National Olympiad in Mathematics 2012**
- **Regional Mathematics Olympiad 2012 – 1st place**
- **Regional Mathematics Olympiad 2011 – 2nd place**
- **National competition in Mathematics "Euclid" 2011 – 2nd prize**
- **Regional Mathematics Olympiad 2010 – mention**
- **Regional Mathematics Olympiad 2009 – 2nd place**

Intern Image Processing Engineer

Robert-Bosch SRL

📅 07/2015 – 08/2016   📍 Cluj Napoca, Romania

- Novel road detection algorithm using a stereo-camera.

PUBLICATIONS

WhyAct: Identifying Action Reasons in Lifestyle Vlogs

The 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP 2021)

Oana Ignat, Santiago Castro, Hanwen Miao, Weiji Li

📅 11/2021   🔗 https://arxiv.org/pdf/2109.02747.pdf

I built a multimodal model that leverages visual and textual information to automatically infer the reasons for an action presented in the video.

When did it happen? Duration-informed Temporal Localization of Narrated Actions in Vlogs

ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM 2021)

Oana Ignat, Santiago Castro, Yuhang Zhou, Jiajun Bao, Dandan Shan, Rada Mihalcea

📅 10/2021   🔗 https://arxiv.org/abs/2202.08138

We propose a simple yet effective method to localize the narrated actions based on their expected duration.

Detecting Inspiring Content on Social Media

9th International Conference on Affective Computing Intelligent Interaction (ACII 2021)

Oana Ignat, Y-Lan Boureau, Jane A. Yu, Alon Halevy

📅 9/2021   🔗 https://arxiv.org/abs/2109.02734

We automatically detect inspiring content from social media data.

Identifying Visible Actions in Lifestyle Vlogs

Annual Meeting of the Association for Computational Linguistics (ACL)

Oana Ignat, Laura Burdick, Jia Deng, Rada Mihalcea

📅 07/2019   🔗 https://www.aclweb.org/anthology/P191643

We build a dataset and multi-modal models for detecting visible human activities from transcribed YouTube videos.

Disparity image segmentation for free-space detection

IEEE 12th International Conference on Intelligent Computer Communication and Processing (ICCP)

Oana Ignat, Cosmin Lazar

📅 08/2016   🔗 https://ieeexplore.ieee.org/document/7737150/

I develop a model for detecting the road from depth images, to enable autonomous driving.

TEACHING ACTIVITIES

Primary Instructor

EECS 198: Discover CS

📅 09/2021 - 12/2021

I **teach an intro to CS course** primarily designed for **underrepresented minorities** in CS.

Engineering Teaching Consultant (ETC)

The Center for Research on Learning and Teaching in Engineering (CRLT-Engin)

📅 09/2020 - 05/2021

I **helped other GSIs/IAs to improve their teaching** through one-on-one consultations where we discuss challenges they face during teaching. I also collected **feedback from students** of the GSIs/IAs and discussed it with the student instructor.

Graduate Student Instructor

EECS 281: Data Structures and Algorithms

📅 09/2020 - 12/2020

EECS 476: Data Mining

📅 01/2020 - 05/2020

Teach AI for Social Good

AI4ALL

📅 07/2019

Introduced **underrepresented minority high school students** to AI by teaching them how to code in Python and implement an NLP project related to **social good**: work with HappyDB dataset to predict what makes people happy.

Teach Math and English

Hometown library

📅 2013

Taught beginner and intermediate level Math and English to high school students in my home town, while being a high school student.

SERVICE AND VOLUNTEERING

Reviewer
ACL Rolling Review

📅 12/2021 - Ongoing

Every month I review 2-3 papers on multimodal (NLP and Computer Vision) research.

Organizer
University NLP Reading Group

📅 08/2019 - Ongoing

🔗 lit.eecs.umich.edu/reading_group.html

Weekly **NLP reading groups** for the University of Michigan students from the CSE, EECS and School of Information.

Student Mentor
Michigan Islamic Academy's Senior Project

📅 09/2019 - 11/2019

Biweekly meetings with a senior student to guide her through her final NLP project, a project related to **diversity and mental health**.

Student Volunteer
Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)

📅 06/2019

Plant trees
Robert-Bosch Green Week

📅 06/2017

Planted 30+ trees in a deforested region

Student Society Member
Babes-Bolyai University

📅 2013-2015   📍 Cluj Napoca, Romania

Participated in projects like: "Careers in IT", "The Week of Informatics and Mathematics students", where I introduced students from other counties to the rich history of Cluj through **team building activities**.

UNIVERSITY GRADUATE COURSES

Dissertation Writing and Writing for Publication

Advanced Artificial Intelligence

Foundations of Artificial Intelligence

Matrix Methods for Signal Processing

Natural Language Processing

Advanced Topics in Computer Vision

CONFERENCES ATTENDED

Annual Meeting of the Association for Computational Linguistics (ACL)

Eastern European Machine Learning summer school (EEML)

North American Chapter of the Association for Computational Linguistics (NAACL)

International Conference on Computational Linguistics (COLING)

Midwest Speech and Language Days (MSLD)

PROGRAMMING SKILLS

Python/ SciPy/ Numpy   Keras/ Pytorch
LaTeX/ Overleaf   Matlab/ Octave
MySQL/ Presto   HTML   CSS
JavaScript   PHP   C++   OpenCV
Hadoop/ MapReduce
Java   C#   LISP   Prolog

LANGUAGES

Romanian
Native   ●●●●●

English
Fluent   ●●●●○

French
Intermediate   ●●●○○

German
Beginner   ●○○○○

Spanish
Beginner   ●○○○○