Nikolaos-Antonios Ypsilantis

CONTACT
INFORMATION

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LinkedIn: [link] , **GitHub:** [link] , **Google Scholar:** [link] ,

Personal Website: [link]

RESEARCH
INTERESTS

Computer Vision, Deep Learning, Large-Scale Visual Recognition, Image Representation Learning, Image Retrieval, Fine-grained and Instance-Level Image Recognition

EDUCATION

Czech Technical University in Prague (CTU) *May. 2022 – present*
Ph.D. Student at the Visual Recognition Group (VRG), Department of Cybernetics,
Faculty of Electrical Engineering
– Topic: **Scalable representations for universal visual recognition**
– Supervisor: Prof. Ondrej Chum

National Technical University of Athens *Oct. 2016 – Feb. 2022*
Diploma (5 year joint Master's degree, 300 ECTS) in **Electrical & Computer Engineering (ECE)**
– *Average Grade:* 8.53/10
– *Major:* Computer Science
– *Specialization:* Deep Learning, Computer Vision, Natural Language Processing

PROFESSIONAL
EXPERIENCE

Czech Technical University in Prague (CTU) *May. 2022 – present*
Researcher at the Visual Recognition Group (VRG), Department of Cybernetics,
Faculty of Electrical Engineering.
– Research focus on image representation learning for fine-grained and instance-level retrieval across multiple domains and at large-scale.
– Collaborating with an industrial researcher (Google Research).

Czech Technical University in Prague (CTU) *Feb. 2021 - Apr. 2022*
Research intern at the Visual Recognition Group (VRG), Department of Cybernetics, Faculty of Electrical Engineering, under the supervision of Assist. Prof. Giorgos Tolias
– Focused on Instance-level Recognition (ILR) task using CNNs and Deep Metric learning.
– Involved in the development of a large scale dataset and benchmark for ILR on artworks, collaborating with a team of international researchers.

PUBLICATIONS

Nikolaos-Antonios Ypsilantis, Noa Garcia, Guangxing Han, Sarah Ibrahimi, Nanne Van Noord, Giorgos Tolias: *"The Met Dataset: Instance-level Recognition for Artwork"* [link]
Proceedings of **Neural Information Processing Systems (NeurIPS) 2021, Track on Datasets and Benchmarks**.

Nikolaos-Antonios Ypsilantis, Kaifeng Chen, Bingyi Cao, Mário Lipovský, Pelin Dogan-Schönberger, Grzegorz Makosa, Boris Bluntschli, Mojtaba Seyedhosseini, Ondřej Chum, André Araujo: *"Towards Universal Image Embeddings: A Large-Scale Dataset and Challenge for Generic Image Representations"* [link]
Proceedings of **International Conference on Computer Vision (ICCV) 2023**.

Nikolaos-Antonios Ypsilantis, Ondřej Chum: *"Co-Segmentation without any Pixel-level Supervision with Application to Large-Scale Sketch Classification "* [link]
Proceedings of **Asian Conference on Computer Vision (ACCV) 2024**.

Nikolaos-Antonios Ypsilantis, Kaifeng Chen, André Araujo, Ondřej Chum: *"UDON: Universal Dynamic Online distillatioN for generic image representations"* [link]
Proceedings of **Neural Information Processing Systems (NeurIPS) 2024**.

Giorgos Kordopatis-Zilos, Vladan Stojnić, Anna Manko, Pavel Šuma, Nikolaos-Antonios Ypsilantis, Nikos Efthymiadis, Zakaria Laskar, Jiří Matas, Ondřej Chum, Giorgos Tolias: *"ILIAS: Instance-Level Image retrieval At Scale"* [link]
Proceedings of **Computer Vision and Pattern Recognition Conference (CVPR) 2025**.

ACADEMIC SERVICE	**Served as reviewer for the following conferences-journals.**

- *International Journal of Computer Vision (IJCV)*
- *Computer Vision and Pattern Recognition Conference (CVPR) 2024, 2025*
- *European Conference on Computer Vision (ECCV) 2024*
- *International Conference on Computer Vision (ICCV) 2025*
- *Winter Conference on Applications of Computer Vision (WACV) 2024, 2025*
- *Neural Information Processing Systems (NeurIPS) 2024*

Co-organizing the Instance-Level Recognition Workshop.
A workshop series focusing on fine-grained visual recognition tasks for identifying and distinguishing specific instances of objects, scenes, or events. It has been regularly featured at premier computer vision conferences, including CVPR, ICCV, and ECCV, and includes peer-reviewed paper presentations and invited keynotes.

TEACHING EXPERIENCE	**Programming Essentials (CTU [link])** *Sept. 2022 - Feb. 2022*

Lab teacher of introduction to programming with Python, also responsible for homework grading. Course is compulsory in the Bachelor's EECS program and is taught in English.

INVITED TALKS	**Computer Vision Winter Workshop (CVWW) 2024** *Feb. 2024*

Presented work on improving large-scale sketch classification
with co-segmentation.

4th Instance-Level Recognition Workshop (ICCV 2021)   *Oct. 2021*
Presented the Met dataset [link]

TECHNICAL SKILLS	**Programming Languages** Python, C/C++
	Machine/Deep Learning Frameworks PyTorch, Jax/Flax, scikit-learn
	Data Analysis and Visualization NumPy, SciPy, matplotlib, pandas
	Scientific Programming MATLAB, GNU Octave
	Computer Vision Frameworks OpenCV, scikit-image
	Version Control Git, GitHub
	Typesetting LaTeX
	Operating Systems Linux, Windows, macOS

SCHOOL - WORKSHOPS - CONFERENCES (ATTENDED)	**IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)** [link] *June 2025*

Premier annual computer vision event comprising the main conference and several co-located workshops and short courses. Took place in Nashville, Tennessee, USA.

High Visual Computing 2025 [link]   *Jan. 2025*
The tenth meeting of the Czech and Slovak image processing, computer graphics and

computer vision community. Took place at Krkonoše, Czechia.

The Thirty-Eighth Annual Conference on Neural Information Processing Systems (NeurIPS) 2024 [link]   *Dec. 2024*
High impact conference on machine learning and artificial intelligence research. Took place in Vancouver, Canada.

International Computer Vision Summer School (ICVSS) [link]   *July 2024*
Attended the International Computer Vision Summer School in Sicily, Italy.

27th Computer Vision Winter Workshop (CVWW) [link]   *Feb. 2024*
Annual meeting of several computer vision research groups located in Graz, Ljubljana, Prague, and Vienna. Took place in Terme Olimia, Slovenia.

International Conference on Computer Vision (ICCV) [link]   *Oct. 2023*
Premier international computer vision event comprising the main conference and several co-located workshops and tutorials. Took place in Paris, France.

Vision and Sports Summer School [link]   *July 2022*
Attended Vision and Sports Summer School in Prague, Czech Republic.

LANGUAGES   **Greek**(Native)

                 English(Fluent)
                 – *University of Cambridge*   *Dec. 2013*
                   Certificate of Proficiency in English
                   C2 Proficiency
                 – *University of Michigan*   *Nov. 2013*
                   Certificate of Proficiency in English
                   C2 level

                 German(Basic)
                 – *Goethe Insitut*   *Mar. 2015*
                   Goethe-Zertifikat B1

HOBBIES   Travelling, Table Tennis

REFERENCES   Ondrej Chum [link], Giorgos Tolias [link]