

# Georgios Smyrnis

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## Education

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- University of Texas at Austin** **Austin TX, USA**  
*Ph. D. in Electrical and Computer Engineering* 08/2020–08/2025
  - Academic Track: Decision, Information and Communications Engineering.
  - Dissertation: “Data Curation for Foundation Model Training”
  - Part of the Wireless Networking and Communications Group.
  - Acquired Master of Science in Engineering in ECE on May 2023, while working towards my final degree.
- National Technical University of Athens (NTUA)** **Athens, Greece**  
*Diploma in Electrical and Computer Engineering* 09/2014–07/2020  
*(Joint bachelor’s & master’s degree)*
  - Concentration: Machine Learning, Computer Science.
  - Thesis: “Tropical Polynomial Division and Neural Network Minimization”.
  - Final Grade: 9.94/10 (1<sup>st</sup> place during graduation).

## Professional and Research Experience

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- Anthropic PBC** **San Francisco CA, USA**  
*Member of Technical Staff* 08/2025–current
- Toyota Research Institute** **Los Altos CA, USA**  
*Intern* 05/2024–08/2024
  - Research internship over the summer.
- Google LLC** **Mountain View CA, USA**  
*Student Researcher* 05/2022–08/2022,  
09/2022–10/2022
  - Summer student researcher position. Part time student researcher during September & October.
- University of Texas at Austin** **Austin TX, USA**  
*Graduate Research Assistant* 06/2021–05/2022,  
09/2022–01/2024  
09/2024–08/2025
  - Performing research on the fields of contrastive learning and self-supervision.
- School of ECE, University of Texas at Austin** **Austin TX, USA**  
*Teaching Assistant* 09/2020–05/2021  
01/2024–05/2024
  - Teaching assistant for the course "Data Science Lab".
- National Center for Scientific Research “Demokritos”** **Athens, Greece**  
*Intern* 09/2019–10/2019
  - Interned at the Institute of Informatics and Telecommunications, Computational Intelligence Lab.
  - Implemented a system for real-time action classification using data from a Kinect camera.
  - Evaluated various methods for segmentation of such data into parts containing human actions.
- National Technical University of Athens (NTUA)** **Athens, Greece**  
*Laboratory Teaching Assistant* 09/2016–01/2018,  
09/2018–05/2019,  
03/2020–07/2020
  - Assisted with lab exercises for “Computer Programming” and “Programming Techniques” courses, until 2019.
  - During 2020, assisted with lab exercises for the course “Computer Vision”.

## Publications & Preprints

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- E. Guha, R. Marten, S. Keh, N. Raof, G. Smyrnis et al., “OpenThoughts: Data Recipes for Reasoning Models”, in *ICLR 2026*, 2026.
- J. Li, A. Fang, G. Smyrnis, M. Ivgi, M. Jordan, S. Y. Gadre, et al. “DataComp-LM: In search of the next generation of training sets for language models.” in *NeurIPS 2024, Datasets and Benchmarks Track*, 2024.
- S. Y. Gadre, G. Smyrnis, V. Shankar, S. Gururangan, M. Wortsman, R. Shao, J. Mercat et al. “Language

- models scale reliably with over-training and on downstream tasks.” in *ICLR 2025*, 2025.
- G. Smyrnis, S. Ravula, S. Sanghavi, and A. Dimakis, “Multimodal Distillation of CLIP Models”, in *NeurIPS 2023 Workshop: Self-Supervised Learning - Theory and Practice*, 2023
  - E. Tsaprazlis, G. Smyrnis, A. Dimakis, and P. Maragos, “Enhancing CLIP with a Third Modality”, in *NeurIPS 2023 Workshop: Self-Supervised Learning - Theory and Practice*, 2023
  - S. Y. Gadre, G. Ilharco, A. Fang, J. Hayase, G. Smyrnis, T. Nguyen, R. Marten et al. “DataComp: In search of the next generation of multimodal datasets.”, in *NeurIPS 2023 Datasets and Benchmarks Track*, 2023.
  - G. Smyrnis, M. Jordan, A. Uppal, G. Daras and A. Dimakis, “Lovasz Theta Contrastive Learning”, in *NeurIPS 2022 Workshop: Self-Supervised Learning - Theory and Practice*, 2022
  - P. Misiakos, G. Smyrnis, G. Retsinas and P. Maragos, “Neural Network Approximation based on Hausdorff distance of Zonotopes”, in *ICLR 2022*, 2022
  - S. Ravula, G. Smyrnis, M. Jordan and A. Dimakis, “Inverse Problems Leveraging Pre-trained Contrastive Representations”, in *Proc’ NeurIPS 2021*, 2021
  - G. Smyrnis and P. Maragos, “Multiclass Neural Network Minimization via Tropical Newton Polytope Approximation” in *Proc’ ICML 2020*, 2020.
  - G. Smyrnis, P. Maragos and G. Retsinas, “Maxpolynomial Division with Application To Neural Network Simplification” in *ICASSP 2020 - 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2020.
  - G. Pikramenos, K. Kechagias, T. Psallidas, G. Smyrnis, E. Spyrou and S. Perantonis, “Dimensionality Reduction and Attention Mechanisms for Extracting Affective State from Sound Spectrograms” in *International Conference on Pattern Recognition Applications and Methods 2020 (selected papers)*, 2020.
  - G. Pikramenos, G. Smyrnis, I. Vernikos, T. Konidaris, E. Spyrou and S. Perantonis, “Sentiment Analysis from Sound Spectrograms via Soft BoVW and Temporal Structure Modelling”, in *Proceedings of the 9th International Conference on Pattern Recognition Applications and Methods - Volume 1: ICPRAM*, 2020.
  - G. Smyrnis and P. Maragos, “Tropical Polynomial Division and Neural Networks”, *arXiv:1911.12922*, 2019.

## ***Volunteering Experience***

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- Organizer for the Data-centric Machine Learning Research Workshop at ICML 2024.
- Reviewer for various iterations of ICML, NeurIPS and ICLR.

## ***Honors & Awards***

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- **Onassis Scholarship** for doctorate studies.
- “**C. Chrysovergis**” & “**I. Kondoulis**” Prizes, for 1<sup>st</sup> place graduation from undergraduate studies (2020).
- **Scholarship**, for undergraduate studies, “Ialemos Kyprianidis” bequest.
- “**Paris Kanellakis**” Prize, for highest grades in Information Technology courses (2016-2017, 2017-2018).
- “**Thomaideion**” Award (1<sup>st</sup> place) for course grades (2015-2016, 2016-2017, 2017-2018).
- “**KARY**” Award for highest course grades (2015-2016).
- **International Physics Olympiad 2014**, Member of Greek delegation, Honorable Mention.

## ***Skills***

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- Programming: Python, MATLAB, C/C++.
- Software Tools/Libraries: Pytorch, Keras.
- Skills: Machine Learning, Computer Vision, Natural Language Processing.
- Languages: English (fluent), French, Greek (native).