Arda Atalik

Ph.D. Student at NYU Center for Data Science

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Education

Doctor of Philosophy in Data Science
NYU Center for Data Science

📅 Sept. 2022 – Ongoing   📍 New York, NY

- Advisors: Prof. Sumit Chopra, Prof. Daniel Sodickson, Prof. Kyunghyun Cho
- Center for Data Science Fellowship

Master of Science in Electrical and Electronics Engineering
Bilkent University

📅 Sept. 2019 – Aug. 2022   📍 Ankara, Turkey

- GPA: 4.0/4.0
- Advisor: Prof. Orhan Arikan
- Thesis: Innovation Based Transmission in AI-Enabled Sensor Networks for 6G IoT Scenario
- 5G Fellowship and The Scientific and Technological Research Council of Turkey Fellowship

Exchange Study in Electrical and Electronics Engineering
École Polytechnique Fédérale de Lausanne (EPFL)

📅 Jan. 2017 – Aug. 2017   📍 Lausanne, Switzerland

Bachelor of Science in Electrical and Electronics Engineering
Bilkent University

📅 Jan. 2014 – Aug. 2018   📍 Ankara, Turkey

- GPA: 3.97/4.0
- Comprehensive Scholarship and High Honor standing in all semesters
- Academic Excellence Award based on top 1% ranking

High School Degree in Natural Sciences and Mathematics
Meram Science High School

📅 Sept. 2009 – June 2013   📍 Konya, Turkey

- GPA: 93.19/100, ranked 320th in the national University Entrance Exam amongst 1.8 million high school graduates

Work Experience

5G Research Engineer
Vodafone

📅 Sept. 2019 – Nov. 2020   📍 Ankara, Turkey

- Vodafone-Bilkent joint project on computationally efficient beam-forming techniques for 5G and beyond networks

Graduate Research Student – EDIC Fellow
École Polytechnique Fédérale de Lausanne (EPFL)

📅 Sept. 2018 – Aug. 2019   📍 Lausanne, Switzerland

- Worked on the remote source coding problem and compute-forward multiple access for Polar codes in the Laboratory for Information in Networked Systems, headed by Prof. Michael Gastpar

Internships

- **2016 – Summer Intern** at Bilkent Univ. NANOTAM Xilinx Virtex 7 VC707 FPGA Programming

- **2018 – Summer Intern** at Polaran
  Studies on Polar Codes and LDPC Codes for the 5G NR under the supervision of Prof. Erdal Arikan

Selected Publications

Differential Entropy of the Conditional Expectation under Additive Gaussian Noise (first author)
IEEE Transactions on Signal Processing

The Price of Distributed: Rate Loss in the CEO Problem (first author)
2022 Conference on Information Sciences and Systems (CISS)

Towards goal-oriented semantic signal processing
Elsevier – Digital Signal Processing
📅 June 15, 2021

Variations on Hammersley's interacting particle process (first author)
Discrete Mathematics Letters
📅 June 19, 2021

Radar Antenna Selection for Direction-of-Arrival Estimations (first author)
2021 IEEE Radar Conference (RadarConf21)
📅 June 18, 2021
📍 Atlanta, USA

Computer Skills

Basic Knowledge: VERILOG, Mathematica, Maple
Intermediate Knowledge: C++, JAVA, Julia, VHDL
Advanced Knowledge: C, Python, MATLAB

Areas of Interest

- Mathematical Foundations of Machine Learning
- Machine Learning for Healthcare
- Communication Systems
- Signal Processing
- Information Theory

More Information

🔗 **Google Scholar**
https://scholar.google.com/citations?user=u6uEIDkAAAAJ

Exams

TOEFL IBT (09/04/21)
- Reading: 28/30
- Listening: 28/30
- Speaking: 23/30
- Writing: 26/30

GRE (11/08/17)
- Verbal: 146/170
- Quantitative: 170/170
- Analytical Writing: 3.5/6