

# SERHAT BAKIRTAS

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## EDUCATION

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- **New York University Tandon School of Engineering** NY, USA  
*Ph.D., Electrical and Computer Engineering; GPA: 3.97/4* Sept. 2019 – present
- **New York University Tandon School of Engineering** NY, USA  
*M.Sc., Electrical and Computer Engineering; GPA: 3.97/4* Sept. 2019 – May 2021
- **Boğaziçi University** Istanbul, Turkey  
*B.Sc., Electrical and Electronics Engineering; GPA: 3.85/4 (5th among 102)* Sept. 2013 – June 2019  
*B.Sc., Mathematics; GPA: 3.85/4* Nov. 2016 – June 2019
- **Ankara Science High School** Ankara, Turkey  
*GPA: 94.96/100 (3rd among 96)* Sept. 2009 – June 2013

## EXPERIENCE

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- **NYU Wireless** NY, USA  
*Graduate Research Assistant, Supervised by Prof. Elza Erkip, CommIT Group at NYU* Sept. 2019 - present
  - Information-Theoretic Foundations of Digital Privacy
  - **Research Interests:** Synchronization Channels
  - Information-Theoretic Analysis of Learned Protein Embeddings
- **NYU Tandon ECE Department** NY, USA  
*Course Assistant, Prof. Elza Erkip* January 2021 - May 2021
  - **Assisted:** Information Theory
- **Krontech** Istanbul, Turkey  
*Engineering Intern* June 2018 - July 2018
  - **Network Protocols:** Authentication, Authorization and Accounting (AAA)
- **ASELSAN (Military Electronic Industries)** Ankara, Turkey  
*Engineering Intern* June 2017 - July 2017
  - **Avionics Hardware Design:** VHDL Design
- **Nanomagnetics Instruments** Ankara, Turkey  
*Engineering Intern* June 2016 - July 2016
  - **ADCs:** External test circuit design for AK5397 ADC

## SKILLS

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- **Related Course Work:** Information Theory, Statistics, Wireless Communications, Digital Communications, Data Structures & Algorithms, Deep Learning, Machine Learning, Statistical Learning, Convex Optimization, Numerical Methods, Detection & Estimation Theory, Digital Signal Processing, Probability & Stochastic Processes
- **Programming Skills:** MATLAB, 5G Toolbox, Python, PyTorch, Monte Carlo Simulations, High Performance Computing.
- **Languages:** Turkish (Native), English (Advanced), Spanish (Intermediate)

## PUBLICATIONS [[SCHOLAR PROFILE](#)]

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**S. Bakirtas**, E. Erkip, "Database Matching Under Column Deletions", *Proc. IEEE Int. Symp. on Information Theory (ISIT)*, Melbourne, Australia, July 2021.

**S. Bakirtas**, E. Erkip, "Matching of Markov Databases Under Random Column Repetitions", *2022 56th Asilomar Conference on Signals, Systems & Computers*, Pacific Grove, CA, November 2022.

**S. Bakirtas**, E. Erkip, "Seeded Database Matching Under Noisy Column Repetitions", *Proc. IEEE Information Theory Workshp (ITW)*, Mumbai, India, November 2022.

## HONORS & SCHOLARSHIPS

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- NYU Tandon School of Engineering, Ernst Weber Fellowship, Sept. 2019– May 2021
- High Honor student of Faculty of Engineering at Boğaziçi University, June 2019.
- High Honor student of Faculty of Arts & Sciences at Boğaziçi University, June 2019.
- TÜBİTAK (Scientific and Technological Research Council of Turkey), 2205 – Undergraduate Scholarship Program, Nov. 2018 – July 2019
- The Ministry of Youth and Sports of Turkey – Merit-Based Scholarship, Jan. 2015 – June 2018
- LYS (Turkish National University Exam), 58th place among 2M participants, 2014.
- LYS (Turkish National University Exam), 175th place among 2M participants, 2013.
- TED Ankara College Math Olympics, Silver Medal, 2011.