

# Fabrizio Carpi

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## Education

- 09/2019 – **New York University**, *Tandon School of Engineering*, Brooklyn, NY, USA.  
Present PhD Student in Electrical Engineering.  
Advisors: Prof. Siddharth Garg and Prof. Elza Erkip.
- 10/2015 – **University of Parma**, Parma, Italy.  
10/2018 Master of Science in Communication Engineering.  
Thesis: “Exploring Machine Learning Algorithms for Decoding Linear Block Codes.”  
Advisors: Prof. Riccardo Raheli and Prof. Henry D. Pfister.  
Co-advisors: Dr. Christian Häger and Dr. Marco Martalò.
- 10/2012 – **University of Parma**, Parma, Italy.  
12/2015 Bachelor’s Degree in Information Engineering.  
Thesis: “Experimental Study of SDN Network Architectures.”  
Advisor: Prof. Luca Veltri. Co-advisor: Dr. Luca Davoli.

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## Experience

- 09/2019 – **New York University**, *NYU WIRELESS*, Brooklyn, NY, USA.  
Present Position: *Graduate Research Assistant*.  
Working on projects at the intersection between machine learning and communications, under the supervision of Prof. Siddharth Garg and Prof. Elza Erkip.
- 11/2018 – **University of Parma**, *Internet of Things (IoT) Lab*, Parma, Italy.  
08/2019 Position: *Research Associate*.  
Working on outdoor/indoor localization within a project sponsored by the Huawei Innovation Research Program (HIRP). Principal Investigator: Prof. Gianluigi Ferrari.
- 03/2018 – **Duke University**, Durham, NC, USA.  
08/2018 Position: *Visiting scholar*.  
Working on my Master’s thesis regarding machine learning techniques applied to telecommunications. Host: Prof. Henry D. Pfister.

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## Publications

- **F. Carpi**, C. Häger, M. Martalò, R. Raheli, H. D. Pfister, “Reinforcement Learning for Channel Coding: Learned Bit-Flipping Decoding,” in *Proc. 57th Annual Allerton Conference on Communication, Control and Computing (Allerton)*, Monticello, IL, USA, September 2019.
- **F. Carpi**, L. Davoli, M. Martalò, A. Cilfone, Y. Yu, Y. Wang, G. Ferrari, “RSSI-based Methods for LOS/NLOS Channel Identification in Indoor Scenarios,” in *Proc. 16th Int. Symp. on Wireless Communication Systems (ISWCS)*, Oulu, Finland, August 2019.
- M. Lian, **F. Carpi**, C. Häger, H. D. Pfister, “Learned Belief-Propagation Decoding with Simple Scaling and SNR Adaptation,” in *Proc. IEEE Int. Symp. on Information Theory (ISIT)*, Paris, France, July 2019.