

Fabrizio Carpi

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Education

New York University

PHD IN ELECTRICAL ENGINEERING

Brooklyn, NY

09/2019 - Present

- Advisors: Prof. Elza Erkip and Prof. Siddharth Garg. Research focus: machine learning applications to telecommunications, information theory.

University of Parma

MS IN COMMUNICATION ENGINEERING (*summa cum laude*)

Parma, Italy

10/2015 - 10/2018

- Graduated *summa cum laude*. Thesis: "Exploring Machine Learning Algorithms for Decoding Linear Block Codes."

BS IN INFORMATION ENGINEERING

10/2012 - 12/2015

Experience

Intel — Next Generation and Standards group

WIRELESS STANDARDS RESEARCH INTERN

Remote, USA

Summer 2021

- Developed use cases for pre-standard 6G, focusing on AI applications. Project: AI-assisted CSI feedback for MIMO.

New York University — Tandon School of Engineering — NYU WIRELESS

GRADUATE RESEARCH ASSISTANT

Brooklyn, NY

09/2019 - Present

- Conduct research about classification and compression in networks with constrained nodes.
- Conference paper at SPAWC-21: "Single-shot Compression for Hypothesis Testing." Also presented as a poster at ITR3@ICML-21, NASIT-21, and won the Best Poster Award at IEEE CTW-21.

TEACHING ASSISTANT — ECE/MA 2233, INTRODUCTION TO PROBABILITY

Fall 2020

- Lead exercise sessions, held office hours, and prepared video tutorials for students. Won the 2021 Chang Education Award in ECE.

University of Parma — Internet of Things (IoT) Lab

RESEARCH ASSOCIATE

Parma, Italy

11/2018 - 08/2019

- Developed methods to improve localization of mobile devices (WiFi/4G) in indoor and outdoor settings.
- Conference paper at ISWCS-19: "RSSI-based Methods for LOS/NLOS Channel Identification in Indoor Scenarios."
- Journal paper under review: "Experimental Analysis of Localization Algorithms with NLOS Pre-Mitigation in IoT Scenarios."

Duke University — Information Initiative at Duke (IID)

VISITING STUDENT FOR MS THESIS

Durham, NC

03/2018 - 08/2018

- Investigated reinforcement learning solutions and machine learning optimizations in the field of channel coding.
- Conference paper at Allerton-19: "Reinforcement Learning for Channel Coding: Learned Bit-Flipping Decoding."
- Conference paper at ISIT-19: "Learned Belief-Propagation Decoding with Simple Scaling and SNR Adaptation."

Leadership

NYU Tandon Graduate Admissions

UNIBUDDY AMBASSADOR FOR NYU TANDON GRADUATE PROGRAMS

Brooklyn, NY

02/2020 - Present

- Represent NYU Tandon through the Unibuddy platform by responding to inquiries from prospective students.

LeadTheFuture

MENTEE (*acceptance rate below 20%*)

Italy

09/2020 - Present

- Mentorship program offered by LeadTheFuture, a leading non-profit organization for people in STEM.

Skills

- **Languages:** Italian (native), English (fluent), Portuguese (fluent).
- **Programming:** Matlab, Python, Tensorflow, Pytorch, \LaTeX .