# Master's in Telecommunications

Department of Electrical and Computer Engineering University of Maryland at College Park College Park, MD 20742, USA



### Program Statistics: Enrollment



Fall 2018: 188 direct applicants.

Fall 2017:231 direct applicants.

Fall 2016: 344 direct applicants.



Note: Fall 2018 enrollment data is not available yet.

### Program Statistics: MS Degrees



#### **Recent graduation stats:**

#### Spring 2017:

• 100 MS degrees awarded

#### Summer 2017:

0 MS degrees awarded

#### Fall 2017:

11 MS degrees awarded

#### Spring 2018:

• 108 MS degrees awarded



Note: Fall 2018 graduation data is not available yet.

### **Recruitment Efforts**

- Marketing and Outreach
  - Carnegie digital (online) marketing campaign
    - Ran from November 2017 to February 2018
    - Display ads and retargeting, search engine advertisements (pay per click), and Facebook and Linked-In behavioral targeting
  - Virtual Info Session (Jan 22, 2018) streamed live online
    - For prospective applicants (based on contacts gained from the online marketing campaign)
    - Welcome, program overview, and live Q&A with ENTS alumni
  - Virtual Open House (May 4, 2018) streamed live online
    - For admitted students
    - Welcome, elective showcase, and live Q&A with current students

### • Referrals

- ECE Referrals: 165 applicants
- CS Referrals: 129 applicants



### New Initiatives

- Graduate certificate programs:
  - All proposals approved by MHEC
  - Areas: Computer Networking, Networking Software Development, Computing Systems and Wireless Communications
- New/redesigned courses:
  - ENTS622 Introduction to Digital Communication Systems
    - New lab component in the Hughes Lab using software-defined radios
  - ENTS669G Special Topics in Computing; Data Mining and Numerical Python
    - New course with "practical" machine learning and Python programming
  - ENTS669F Special Topics in Computing; Introduction to Optimization
    - New course cross-listed from ECE



## MS in Machine Learning Program

- New professional program proposed by the ECE Department:
  - Similar to the ENTS program
  - Technical only (no business component)
  - Focus: practical, industry-oriented approach with solid foundations
  - Inspired by similar existing programs at CMU, NYU and Columbia U.
  - Will be submitted in 2-3 weeks (before the end of June 2018)
- Degree requirements:
  - Thesis option: 30 credits total
    - 6 core courses
    - 2 elective courses
    - 6 credits of MS thesis research
  - Non-thesis option: 30 credits total
    - 6 core courses
    - 4 elective courses
    - Scholarly paper



## MS in Machine Learning Program

### • Core courses:

- ENML 601: Probability and Statistics
- ENML 602: Convex Optimization
- ENML 603: Computing Systems for Machine Learning
- ENML 604: Algorithms and Data Structures
- ENML 605: Machine Learning
- ENML 606: Data Science
- Electives: initial set
  - ENML 610: Advanced Machine Learning
  - ENML 612: Deep Learning
  - ENML 620: Estimation and Detection
  - ENML 621: Digital Signal Processing
  - ENML 630: Numerical Methods
  - ENML 640: Computer Vision
  - ENML 650: Cloud Computing
  - ENML 651: Big Data Analytics

