Mia Chiquier
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Education:

- **Columbia University**, School of Engineering and Applied Science, Fall 2020-Present, New York
  Degree: Ph.D.
  Topic: Computer Vision, GPA: 3.88/4.00

- **University of Pennsylvania**, School of Engineering and Applied Science, 2015-2019, Philadelphia
  Degree: Bachelors of Science,
  Major: Computer Science, GPA: 3.64/4.00, Minors: Comp. Neuroscience, Mathematics, Systems Engineering

- **Washington International School,** IB Diploma, 2011-2015,Washington, D.C
  IB courses: HL Mathematics (7/7), Physics HL (7/7), French Lit A HL, Chemistry, Economics, English

Teaching Experience:

- **Head Teacher's Assistant for Advanced Computer Vision**, Summer 2021, New York
  Instructed over 80 students in Office Hours once a week, as well as designed homeworks.

- **Barnard University Mentor for Women in CS**, September 2020-Present, New York
  Teaching and mentoring undergraduate women at Barnard in CS, and computer vision specifically.

- **Head Teacher's Assistant for Dynamical Systems**, September 2019-December 2019, Philadelphia
  Instructed 75 students in Office Hours 3 hours a week, conducted 2 monthly Review Sessions, and coached students individually.

Research Experience:

- **Real-Time Neural Voice Camouflage**, **2021, In submission soon**
  We propose a method to camouflage a person's voice from automatic speech recognition without inconveniencing other people in the room. Standard adversarial attacks do not work in streaming situations because the characteristics of the signal will have changed by the time the attack is optimized. We introduce a new class of streaming adversarial attacks, which achieves real-time performance by predicting the attack that will be the most effective in the future.

- **Adversarial Attacks are Reversible with Natural Supervision, ICLR 2021**
  Developed a method to reverse adversarial attacks on image classifiers, which we find also collaterally disrupt incidental structure in the image. We modify the attacked image to restore the natural structure, in turn providing a defense.
  Authors: Chengzhi Mao, Mia Chiquier, Hao Wang, Junfeng Yang, Carl Vondrick

- **The Boombox: Visual Reconstruction from Acoustic Vibrations, 2021, CoRL 2021**
  Developed a method to use neural networks to predict a visual scene from small acoustic vibrations in a container.
  Authors: Boyuan Chen, Mia Chiquier, Hod Lipson, Carl Vondrick

- **Researcher at the Reunion Island University,** March 2020-August 2020, Reunion Island
  Implemented machine learning algorithms to predict the short-term and long-term production of solar energy, as well as the consumption of electrical energy at various scales. These forecasts were used to optimize the integration of renewable energies into the smart grid of the Reunion Island.

- **Researcher under Dr. Jianbo Shi,** May 2019 - December 2020, Philadelphia
  Developed sequential neural network models to predict the optical flow of vehicles' displacement on the road solely from the sound they emit, using data from a stereo recorder.

- **Google Explore Research Program,** November 2019 - November 2020, Philadelphia
  Developed a machine learning pipeline for multilingual Natural Language Processing under supervision of Dr. Dan Roth.

Internships: Deep Learning Intern at Heuritech (Summer 2018), Natural Language Processing Intern at AFI (Summer 2017), AI intern at Spirops (Summer 2016)
Awards: Columbia Center of AI Technology - Amazon Fellowship Recipient, Career Mathematics Achievement Award (WIS)