



# Mohammad Zaryab

PATENT AGENT

Mohammad is a patent agent in the firm's Intellectual Property group.



## Practices

[Patent](#)

## Education

Columbia University, MSEE, 2017

William E. Macaulay Honors College - Grove School of Engineering (CUNY), BE, summa cum laude, 2015

## Offices

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Mohammad is a patent agent that specializes in preparing and prosecuting patent applications directed to machine learning, quantum computing, cybersecurity, mixed reality, and blockchain among several other technological fields. In addition to having prepared and prosecuted several hundred applications (with over 70% being allowed), Mohammad has experience in analyzing the validity of patents, preparing claim charts, and evaluating third party patent risks to provide portfolio direction to clients. Given this wholistic understanding, Mohammad values preparing applications that not only can get granted by a patent office, but can withstand invalidation attempts and can provide clients with broad protection for their inventions.

## Previous Work

Prior to joining ArentFox Schiff, Mohammad worked at an IP boutique firm where he worked with clients in industries including media guidance (e.g., streaming, gaming, etc.), network communications, and artificial intelligence. In terms of technical experience, Mohammad has prior hands-on work experience in neural networks, the Internet of Things (IoTs), big data, and medical devices.

Mohammad has been a product developer and a research assistant at multiple laboratories including the Structure Function Imaging Laboratory at Columbia University, the Robotics Laboratory at the City College of New York, and the Optical Communications & Photonic Systems Laboratory at the City College of New York. In his research, Mohammad has had experience with several state-of-the-art technologies in fields such as machine learning, optics, and computer vision. As a research assistant at Columbia University, Mohammad developed a machine learning algorithm used in heart surgeries. The algorithm, programmed using MATLAB, detects whether a catheter inserted in the heart has made contact with heart tissue – allowing surgeons to properly perform operations (e.g., ablation) to treat arrhythmias. As a product developer, Mohammad developed a Visual C++ software that assesses ultrasound image quality in a portable ultrasound machine. The ultrasound machine project additionally involved a hardware component in which Mohammad created a womb simulator using touch sensors, microcontrollers, and various signal processing filters.

## Professional Activities

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- Member of Tesla Leadership Circle at Columbia University
- Member of the Institute of Electrical and Electronics Engineers (IEEE)
- Member of Tau Beta Pi: The Engineering Honor Society

## Publications, Presentations & Recognitions

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### Publications

- [Dual-modality Optical Spectroscopy and Optical Coherence Tomography Ablation Catheter for Intraoperative Assessment of Cardiac Lesion Development](#), The Optical Society of America (OSA), April 2018
- [Towards optical spectroscopic anatomical mapping \(OSAM\) for lesion validation in cardiac tissue](#), SPIE Proceedings Paper, April 2017
- [Robust classification of contact orientation between tissue and an integrated spectroscopy and radiofrequency ablation catheter](#), SPIE Proceedings Paper, February 2017

### Recognitions

- Electrical Engineering Research Award, Electrical Engineering Department of Columbia University, May 2017
- Social Impact Innovation Semifinalist, Unite for Sight - Global Health & Innovation Conference (GHIC), April 2017
- Engineering Alumni Medal: Electrical Engineering, City College of New York, May 2015
- Valedictorian Candidate of the City College of New York, May 2015
- Nikola Tesla Electrical Engineering Scholar, Electrical Engineering Department of Columbia University, March 2015

## Life Beyond the Law

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When not dealing with patents, Mohammad can be found gardening or renovating/repairing his house. He also has many hobbies ranging from playing tennis to doing magic tricks.

### Bar Admissions

[US Patent and Trademark Office](#)