# Ronen Adato, PhD

**SENIOR ASSOCIATE**

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Dr. Ronen Adato builds patent portfolios tailored to align with the particular business goals and needs of a variety of clients, including start-ups, private and public companies, and academic institutions. He has advised clients through various phases of diligence, including fundraising, mergers, and acquisitions, as well as providing clients with competitive IP landscape analysis, infringement analysis, and validity/invalidity analysis. Ronen has particular expertise in biomedical technologies involving machine-learning (ML), imaging systems and image analysis, optics/photonics, diagnostics tools, and nanotechnology.

As a postdoctoral fellow in Boston University's Department of Electrical and Computer Engineering (with additional appointments in the Photonics Center and Rafik B. Hariri Institute for Computing and Computational Science and Engineering), Ronen focused his research on creating nanophotonic and computational tools for sensing, microscopy, and spectroscopy. He oversaw projects aimed at developing new techniques for characterizing semiconductor integrated circuits for failure analysis and security testing applications. Ronen also secured funding for and managed the development of a multi-user near-field microscopy facility as part of the National Science Foundation Major Research Instrumentation program. Ronen's PhD research focused on development of nanoscale antennas to enhance the sensitivity of infrared absorption spectroscopy measurements used for study of protein structure-function relationships and disease diagnostics.

## Focus Areas

**Intellectual Property**

- IP Counseling
- Post Grant Proceedings

## Representative Engagements

- Development and prosecution of patent portfolios for start-ups, venture-backed companies, public companies, and research institutions.
- Competitive landscape searching and analyses.
- IP diligence support for financing transactions, mergers, and acquisitions.
- Assists patent prosecution and litigation teams in AIA post grant review proceedings.

## Publications and Presentations

- "Patent Perspectives: AI, Litigation Trends & Key Insights from the Past Year," panelist, BBA's IP Year In Review Conference, March 2025
- "Rapid mapping of digital integrated circuit logic gates via multi-spectral backside imaging," first author, *arXiv preprint*
- "Physical modeling of interference enhanced imaging and characterization of single nanoparticles," co-author, *Optics Express*

- "Integrated nanoantenna labels for rapid security testing of semiconductor circuits," speaker, Optical Society of America Frontiers in Optics Meeting
- "Detecting Hardware Trojans using backside optical imaging of embedded watermarks," co-author, *Design Automation Conference*
- "Engineering mid-infrared nanoantennas for surface enhanced infrared absorption spectroscopy," first author, *Materials Today*
- "In-situ ultra-sensitive infrared spectroscopy of biomolecule interactions in real-time with plasmonic nanoantennas," first author, *Nature Communications*
- "Ultra-sensitive vibrational spectroscopy of protein monolayers with plasmonic nanoantenna arrays," first author, *Proceedings of the National Academy of Sciences*, USA

## Education & Credentials

- Boston College Law School, JD (2022)
- Boston University, PhD (2013) Electrical and Computer Engineering
- The University of Alabama in Huntsville, MS (2008) Electrical Engineering
- Duke University, BS (2005) Electrical Engineering

## Admissions

- Massachusetts
- U.S. Patent & Trademark Office