



## Heidi R. Pickreign

TECHNOLOGY SPECIALIST

### Concord Office

530 Virginia Road, Concord, MA 01742

978.202.3440

Heidi.Pickreign@hbsr.com

HAMILTON  
BROOK SMITH  
REYNOLDS

Intellectual Property Law

### PRACTICE AREAS

- Patents
- IP Litigation

### TECHNOLOGIES

- Electrical Engineering
- Computer Hardware
- Computer Software
- Mobile
- Telecommunications
- Network Infrastructure
- Medical Devices
- Semiconductors
- Business Methods

### EDUCATION

- Rensselaer Polytechnic Institute, B.S. in Electrical Engineering, cum laude
- Rochester Institute of Technology, M.S. in Electrical Engineering

### PROFESSIONAL ASSOCIATIONS

- Tau Beta Pi, the National Engineering Honor Society
- Eta Kappa Nu, the Electrical and Computer Engineering Honor Society

Heidi assists with patent preparation and prosecution in the areas of computer systems, artificial intelligence (AI), neural networks, signal processing, medical devices, bioinformatics, mobile applications, data analytics, circuits and electronics, software, cloud computing, 3D modeling, blockchain, image processing, vision systems, transducer technology, natural language understanding and speech recognition, 3D printing, and telecommunications.

In addition, Heidi has experience prosecuting patents in the life sciences area, such as patents relating to systems and methods for cell culture, aquaculture, and mammal response to treatment, as well as methods and devices for measurements of biological matter, including measurements of cells, proteins, and nucleic acid.

Heidi has a wide range of industry experience that spans the Computer Networking, Signal Processing, Telecommunications, Defense, Photographic and Automotive industries. Before joining the firm, Heidi worked as a Senior Principal electrical and software engineer.

She has held engineering positions at Turin/Force10 Networks, 3Com, Harris RF Communications, Kodak, and General Motors. While an undergraduate student, she interned as a General Motors Scholar and was a select member of the Rensselaer Professional Leadership Program.

During Heidi's engineering career, she worked on the embedded design of service provider networking products, PCI network interface cards, tactical radios, document scanners, and printers. Her experience includes telecommunication and Ethernet packet networks, networking software and protocols, Ethernet switching/routing, signal processing, analog/digital hardware design, embedded data path, and device driver software.

Heidi has designed software for the implementation of IEEE 802.3ah Ethernet OAM, and device driver software for Ethernet PHYs and packet transport switches. She has developed software for a RISC processor-based network interface card, designed analog/digital hardware for an HF modem, and developed embedded DSP firmware for multi-processor-based voice and data communications products involving signal processing and data transport protocols.

Heidi has engineering experience in research and product development and has worked in both start-up and large corporation environments. She has contributed to all phases of product development, including engineering field support. She is also a co-inventor on multiple patents related to self-diagnostic testing and boot techniques of network interface cards.