

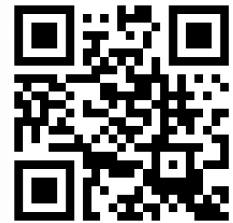
Shahab Hamidi-Rad

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Career Summary:

- **A problem-solving and results-oriented software architect** with 20+ years of experience designing and implementing robust, scalable software systems. Proven track record of delivering innovative solutions to complex technical challenges.
- **A proactive and passionate AI/ML expert** with 10+ years of hands-on experience delivering deep learning solutions for real-world challenges.
- **An energizing coach and mentor** committed to unlocking team potential by providing clear direction, inspiration, and support for individual growth.
- **A meticulous expert bridging the gap between research and production** and leveraging deep machine learning expertise and software development skills to deliver impactful solutions.

Areas of Expertise:

Machine Learning

Reinforcement Learning

Neural Network Compression

Swift

Deep Learning

Computer Vision

Python

Java

NLP

PyTorch/Tensorflow

C/C++

Quantum Computing

Professional Experience:

InterDigital AI Lab, Los Altos, CA

2019-Present

A technology research and development company that provides wireless and video technologies for mobile devices, networks, and services worldwide. The AI Lab examines how ideas at the leading edge of AI/ML research can be used to deliver the next generation of wireless and immersive technologies.

Principal Engineer

As a quick learner with a deep understanding of machine learning, I successfully tackled complex wireless communication challenges by developing cutting-edge deep learning models for hybrid beam-forming, channel state information compression, and AI/ML positioning.

- **Successfully represented InterDigital at MPEG NNC standard meetings**, making significant contributions to the standard. Designed and developed the "Fireball" tool, incorporating state-of-the-art compression and quantization techniques for neural networks.
- **Rapidly acquired expertise in quantum computing algorithms** and their application to wireless communication problems, culminating in a publication at a top quantum computing conference.
- **Developed a suite of machine learning tools** to streamline wireless communication research. Leveraged these tools to create innovative solutions and contribute to multiple publications in leading wireless, signal processing, and machine learning venues.

Technicolor AI Lab, Palo Alto, CA

2015-2019

A multinational corporation that provides creative services and technology products for the communication, media, and entertainment industries.

Software Architect

Joined a team of seasoned machine learning researchers to tackle challenging real-world problems. Quickly developed a deep understanding of machine learning, optimization, and deep learning, and contributed to the team's success by implementing innovative solutions and securing intellectual property.

- **Designed and implemented a robust machine learning model** to predict failures in gaming and movie media manufacturing, resulting in significant cost savings.
- **Successfully developed proof-of-concept machine learning solutions** for diverse applications including indoor localization using light fingerprints, face recognition on OTT devices, and conversational interfaces for IoT devices.

Harmonic Inc., San Jose, CA

2006-2015

An American technology company that develops and markets video routing, server, and storage products for companies that produce, process, and distribute video content for television and the Internet.

Tech Lead, Software Development Manager

Advanced to Tech Lead and Software Development Manager roles, leading a team of engineers in developing the next-generation firmware for Harmonic's "Electra" line of video encoding products.

- **Successfully addressed the problem of escalating open firmware issues** by developing a strategic approach to allocate engineering resources for both bug fixing and new feature development.
- **Successfully led a team of engineers** in the design and development of innovative new features, including Digital Program Insertion (DPI), provisioning software, and a web user interface for "Electra" encoders.

Senior Staff Software Engineer

Started at Harmonic as a Senior Software Engineer and quickly excelled, earning a promotion to Senior Staff Software Engineer through consistent delivery of high-quality software features.

- **Designed and implemented Harmonic's statistical multiplexing** sub-system which optimizes the bandwidth usage shared by multiple channels based on the video compression complexities.
- **Identified inefficiencies in software development and testing processes** and developed custom tools to address these challenges, resulting in increased productivity and quality.

Patents/Publications:

Please visit my personal website for:

- **Research:** <http://www.shahabonline.com/me/index.html#research>
- **Patents:** <http://www.shahabonline.com/me/index.html#patents>
- **Publications:** <https://www.shahabonline.com/me/index.html#publications>

Education:

- BS in Electronics Engineering from the K.N. Toosi University of Technology, Tehran-Iran.

Honors:

- Rank 25 in Nationwide Mathematics Olympiad, Iran.