

Contact

www.linkedin.com/in/shahrooz-shahparnia-6596183 (LinkedIn)

Top Skills

Digital Designs
Partition
Optimization

Languages

English (Full Professional)
Italian (Native or Bilingual)
Persian (Native or Bilingual)

Patents

Tissue characterization using intracardiac impedances with an implantable lead system
Input device for touch sensitive devices
Input device for and method of communication with capacitive devices through frequency variation
Tissue characterization using intracardiac impedances with an implantable lead system
Tissue characterization using intracardiac impedances with an implantable lead system

Shahrooz Shahparnia

Custom Silicon Architect @ Apple | Analog Design, Hardware
Campbell, California, United States

Summary

As a Custom Silicon (ASIC) Architect at Apple, I have over 11 years of experience in leading the system development of innovative and cutting-edge hardware solutions for various products, such as the iPhone, the iPad, and the Apple Vision Pro.

My core competencies include hardware and analog design, embedded firmware development, prototyping and feasibility testing, silicon requirements and vendor implementation, and silicon integration and product launch. I have also contributed to multiple patents in the field of touch and stylus sensing, medical device sensing, camera module sensing and actuation and camera controllers.

My mission is to leverage my expertise in custom silicon design and engineering to create and deliver high-performance, reliable, and user-friendly devices that enhance the quality of life and experience of Apple's customers. I am passionate about exploring new technologies and application that can push the boundaries of innovation and excellence in the industry.

Experience

Apple

Custom Silicon (ASIC) Architect

December 2011 - Present (13 years 6 months)

Cupertino, CA

- * Lead architect for Apple's sensor shift and lens shift camera AF/OIS controller (custom silicon) for iPhone 12, 13 and 14 (2017-2023)
- * Lead architect for eye motion tracker and optic ID custom silicon for Apple Vision Pro (2020-2022)
- * Special projects (health technology) feasibility lead (2015-2017)

* Lead architect for Apple's iPad pencil and touch controller early prototype development to custom silicon launched in 2015 and available on many iPad models since (2011-2015)

Synaptics Incorporated

Custom Silicon (ASIC) Design Engineer

November 2006 - November 2011 (5 years 1 month)

Santa Clara, California, United States

- * Lead designer for the first generation multitouch controller
- * Lead designer for the first generation display driver + multitouch controller
- * Analog design for custom touch controller IP blocks (AFE, Oscillator, bandgap, biasing, etc.)
- * Embedded FW development for touch controller validation

St. Jude Medical, Cardiology Division, Inc.

Circuit Design Engineer

November 2004 - November 2006 (2 years 1 month)

Sunnyvale, California, United States

- * Prototyping and special projects (embedded FW development, board level analog and digital circuit design (FPGA))
- * Analog IP development for cardiac implantable devices
- * Characterization and validation of wireless data transfer protocols and circuits for cardiac implantable devices

Education

University of Maryland

PhD, Electrical and Computer Engineering · (2000 - 2005)

University of Maryland

Master of Science - MS, Computer Engineering · (September 2000 - September 2003)

Electrical Engineering Department, Sharif University of Technology

Bachelor's degree, Electrical and Electronics Engineering