



Richard W. DeVaul Ph.D.

Summary

Rich is an experienced CTO and engineering team manager for technical innovation and product development. He has spent the last five years developing innovative low-cost, low-power, wearable solutions for problems in the domains of personnel monitoring, high-performance sport, and health and wellness.

Rich's core technical expertise lies in the domains of real-time signal processing, embedded systems design, statistical machine learning, and cognitive human factors. With a Ph.D. from the MIT Media Lab and five years of in-the-trenches company- and product-building experience, he is currently seeking fulfilling work as a CTO, VP of Engineering, or Senior Scientist/Senior Engineer position in an innovation-fostering organization with growth potential.

As President and co-founder of AWARE Technologies, he served as AWARE CEO between 2006 and Q1 2009, leading AWARE's financing and product development efforts and overseeing the transition from successful R&D shop to a product- and service-focused company. During this period AWARE raised \$590,000 in outside investment and developed commercial offerings for corporate fitness. As AWARE CTO, Rich led an all-MIT engineering team in successful contract R&D projects for the US Army, DARPA, and Olympic sport organizations while developing valuable core intellectual property in the domain of real-time motion analysis and wireless technology. Rich continues in his role as senior scientist and lead inventor, with one US patent issued (7,280,040) and several additional domestic and international patents pending.

Relevant Experience

President and CEO, AWARE Technologies 2006 – Q1 2009

- Closed sales with Sunkist, Google, and Blue Cross/Blue Shield of Massachusetts, among other high-profile customers.
- Led financing effort that raised \$590k in convertible debt funding from outside investors.
- Managed AWARE transformation from contract R&D to product-focused organization:
 - Developed in-house product development and manufacturing expertise.
 - Recruited sales and contract marketing talent.
 - Prioritized quality assurance and process to support manufacturing and production.
- Recruited two additional MIT engineering hires with strong focus on team building and group cohesion.
- Developed investor materials and led presentations to VC and Angel groups in New England and San Francisco Bay Area.

Chief Technical Officer, AWAre Technologies 2004 – 2006

- Led design team for low-cost, advanced physical activity monitor optimized for low-cost 10,000+ unit production.
- Led successful contract R&D projects for Olympic sports organizations, US Army, DARPA, and private-sector clients.
- Co-authored successful proposals for SBIR/STTR Phase I and SBIR Phase II funding.
- Developed core IP in domains of on-body wireless and ultra-low-power real-time signal classification and led prosecution of US and oversees patents.
- Principal Inventor of issued US Patent 7,280,040, additional patents pending.

Relevant Skills

- 30+ years software development experience
 - Selected programming languages:
 - Systems languages: C, C++, Assembly (multiple architectures)
 - Dynamic languages: Scheme, Java, Python, Objective C
 - Mathematical languages: Matlab, R
 - Selected platforms and operating systems:
 - Linux (enterprise & embedded), OS X, iPhone OS
 - X86/StrongArm/Xscale
- 10 years embedded systems hardware/firmware design experience
 - Selected platforms and toolchains:
 - Gnu/Microchip/Atmel compiler toolchains
 - Eagle Cad
 - Atmel AVR/8051/Arm/Xscale target platforms
 - Xilinx FPGA
- 5 years of engineering management and entrepreneurial leadership
- Expert in applied statistical machine learning and real-time signal classification for low-power, embedded applications.
- Strong communications skills. Experienced presenter & invited speaker. At home with social media tools, graphic and visual design.

Education

Rich graduated from the MIT Media Lab with his Ph.D. in 2004. His thesis topic, "The Memory Glasses," was featured on Scientific American Frontiers with Alan Alda. As a Toshiba Fellow Ph.D. student, Rich was a founding organizer and leader of the MIThril wearable computing project, which developed a distributed, clothing-integrated wearable computing research platform. He is first author of peer-reviewed academic publications in the domains of electrical engineering, real-time signal classification, and

human/machine interaction for wearable interfaces. Rich has served as a journal referee for the IEEE and invited speaker on the topic of wearable technology and human performance.

Prior to his Ph.D. work, Rich studied architecture, computer graphics, physics, and graphic design.

Rich holds a Masters degree (1999) and Ph.D. (2004) from MIT, and a B.E.D (1994) from Texas A&M University.

Accomplishments

- Lead architect and current maintainer of [StepTrakLite](#), a popular iPhone application with over 150,000 downloads and recently featured in the [Wall Street Journal](#) and [USA Today](#)
- Principal Inventor of issued US patent [7,280,040](#) and other pending patents
- Principal Scientist and proposal co-author of multiple SBIR/STTR contract awards
- Invited speaker at academic high-performance sports and mobile technology conferences
- Selected as one of 35 at-large Massachusetts delegates to the 2005 White House Conference on Aging
- 2nd degree blackbelt, Kokikai Aikido
- First author of multiple peer-reviewed academic publications
- Toshiba Fellow, MIT Media Lab

Hobbies

- Music production and performance (30+ years of classical cello, rock & roll cello, backup vocals, drums)
- Ice climbing, rock climbing, and snowboarding
- 10+ years practicing and teaching Kokikai Aikido
- Photography and graphic design
- Circus arts and fire performance

Contact

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References provided upon request.