



Ermal Dreshaj

+1.216.496.3515 ermal@media.mit.edu 16 Unity St. Boston, MA 02113

Profile

Driven by the curiosity of technology that makes us go “wow!”, my skill set spans the breadth of experience and interests lying at the intersection of core engineering disciplines, design, immersive interaction technology and computer graphics.

Experience

RESEARCH ASSISTANT, MIT MEDIA LAB, OBJECT-BASED MEDIA GROUP – 2014-PRESENT

Research into the applications of digital holographic video imaging. Real world 3D data to hologram fringe pattern computation, holographic telepresence and interaction. Product design and fabrication research for wellness applications and sometimes just for fun.

SYSTEMS ENGINEER, PERCEPTUAL COMPUTING, INTEL CORPORATION – 2010 - 2013

One of the founders of the Perceptual Computing Group, developed new human-computer interaction technologies. Technical lead and product manager of a mobile sensor controller project. Prototyped work with motion sensing, depth-sensing camera technologies and computer vision algorithms and techniques for interaction, telepresence and 3D vision. SDK architecture planning.

Education

MIT, Cambridge, MA – MS Media Arts and Sciences (Media Lab), 2015

Case Western Reserve University, Cleveland, OH – BS Computer Engineering, 2009

Skills

Core Strengths - C++, C#/.NET+WPF, driver I/O, sockets, parallelism, SSE & AVX (SIMD), object-oriented and event-driven programming. Design and fabrication techniques (Rhino 3D and Solidworks) 3D printing and PCB milling. Prototyping, micro-controllers, Arduino, digital circuits. 3D graphics, capture, 3D display and and motion sensors.

Comforts - Boost, OpenGL, CUDA, OpenCL, Win32 API, Unix, Point Cloud Library, OpenCV. New vision technology: structured light, time-of-flight, stereo correspondence, IR imaging, RGB+D techniques, digital imaging.

Familiarity - Objective-C, Java, Android and iOS development.

Publications

S. Jolly, E. Dreshaj, and V. M. Bove, “Computation of Fresnel holograms and diffraction-specific coherent panoramagrams for full-color holographic displays based on anisotropic leaky-mode modulators,” Proceedings of SPIE Practical Holography XXIX: Materials and Applications (2015).

Love cooking, “Twin Peaks”, dictators of the world, rubiks cubes, and independent films.