

BRAD CRACCHIOLA

bcracchiola@gmail.com 310.749.2723 @bradcracchiola
84 Neish St, Camarillo, CA 91301

SUMMARY

- Co-developer and instructor of the CE499 course INNOVATION IN ENGINEERING DESIGN FOR GLOBAL CHALLENGES (with Dr Becerik-Gerber and Dr Gerber), a multi-disciplinary class teaching engineering innovation and social entrepreneurship using design thinking methodology and the engineering development of real-world products addressing global wicked problems
 - Results-oriented leader with 18 years of experience guiding innovative teams, products and experiences from design concept through engineering development and manufacturing for world-class brands
 - Accomplished manager with proven experience directing and inspiring multi-disciplinary product development and project management teams under strict budgets and timelines
 - Passionate enabler of creative vision with a balanced left/right brained approach to problem solving
 - Product developer with extensive experience in design thinking, user research, prototyping and testing
-

EXPERIENCE

Viterbi School of Engineering, University of Southern California, Los Angeles, CA **2018-present**

Adjunct Lecturer

- Instructor for CE499: INNOVATION IN ENGINEERING DESIGN FOR GLOBAL CHALLENGES
- Co-founded and developed the 2-semester course curriculum with Dr Burcin Becerik-Gerber, Dr David Gerber and Dan Druhora. This course teaches design thinking and lean startup methodologies, user research, building and testing of prototypes and MVPs, design and engineering development of real-world products and social entrepreneurship to address the needs of global refugees. With 18 years of product engineering industry experience, my skillset and mentoring empowers these students to bring engineering concepts to reality through prototyping, testing, sourcing and managing of vendors, and manufacturing
- Traveled to Lesbos, Greece with students and Sonny Astani to conduct real-world product testing and user research with refugees in the Moria and Kara Tepe camps, using physical and digital MVP prototypes developed and built by students. Guided teams in systematically improving their designs based on testing data and user feedback
- Under our mentorship, two of the five teams of the 2018-2019 cohort went on to form legal corporations, are applying for 501c3 nonprofit status, and continue operating beyond the course

BMW GROUP DESIGNWORKSUSA, Newbury Park, CA **2010-present**

DesignworksUSA is a BMW-owned design consultancy working on BMW and outside client projects

Associate Director, Program Management / Deputy Director of Operations

- Lead a multi-disciplinary team that designed and engineered the Paralympic racing wheelchair for the US Paralympic Track & Field team. This carbon fiber and titanium wheelchair won 5 international design awards and helped the team win 7 medals in the 2016 Rio Paralympics, and is currently featured at the Cooper Hewitt Smithsonian Design Museum.
- Leads, trains and mentors the Project Management team
- Simultaneously managed multiple projects, million-dollar budgets and cross-functional creative teams including designers, CAD sculptors, 3D modelers, engineers, and project managers

EXPERIENCE (CONTINUED)

BMW GROUP DESIGNWORKSUSA, Newbury Park, CA

2004-2010

Senior Mechanical Engineer / Deputy Director of Engineering

- Managed engineering, design, and CAD staff, schedules and budgets for product development projects
- Collaborated closely with major brands including BMW, Microsoft, HP, Disney, BART and others to leverage new materials/technologies, develop innovative experiences, and guide products from creative ideation through production
- Engineered numerous consumer electronics, housewares and medical products for manufacturing
- Developed electro-mechanical solutions for a Microsoft data-streaming watch design after Microsoft's manufacturing partners failed to provide viable engineering concepts
- Designed and built working mechanical prototypes and appearance models for proof-of-concept demonstrations, design evaluation, and manufacturing development
- Sourced and managed vendors (both local and onsite in Asia) for prototyping and production
- Established metrics for tracking operations efficiency; Developed and implemented new processes and tools to improve the efficiency of projects and business operations and visualize multi-project workflows
- Managed the production of large-scale working appearance models under tight budgets and delivery dates for industry trade shows

RICHARD HOLBROOK DESIGN, Pasadena, CA

2001-2004

Lead Design Engineer / Production Manager

- Collaborated on the design, engineering, and production of new products from concept through CAD development and manufacturing for brands such as Herman Miller, Teknion, and Design within Reach
- Collaborated on the establishment of a full assembly line for production of contract furniture
- Prototyped concepts, managed production, and ensured designs met manufacturability and cost target
- Planned and managed schedules, budgets, and manufacturers for product development projects
- Achieved a 20% reduction in raw materials waste through supply chain and production process analysis
- Designed electrical products, managed production, and guided products through UL certification

EXPONENT, Los Angeles, CA

1998-2001

Forensic Engineer / Project Leader

- Managed large-scale projects and supervised multi-disciplinary teams under rigid schedules and budgets
- Developed a method and custom test equipment to recreate full-scale vehicle rollover accidents for Ford: LINK: <http://www.exponent.com/CRIS-Controlled-Rollover-Impact-System/>
- Developed the first working prototypes for the US Army's "LandWarrior" program for advanced mobile technology: LINK: <http://usatoday30.usatoday.com/tech/news/2002/02/07/tech-military.htm>
- Developed custom test equipment and supervised engineering test programs to recreate and determine causes of various product failures and large-scale vehicle and combustion accidents
- Inspected, analyzed and recreated combustion accident scenarios and mechanical equipment failures to determine root causes and failure modes of large scale electromechanical and fire-related accidents

EXPERIENCE (CONTINUED)

NASA JET PROPULSION LABORATORY (JPL), Pasadena, CA

1993-1996

Remote Science Design Engineer, Galileo Spacecraft Mission

- Planned and programmed spacecraft research operations for onboard equipment with limited spacecraft resource budgets and timeframes
- Analyzed and resolved spacecraft resource conflicts between project teams
- Created and programmed custom data analysis software to identify mission-critical issues in spacecraft operations

EDUCATION, ACCREDITATIONS, AND ADDITIONAL INFORMATION

- UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, CA
M.S., Mechanical Engineering, May 1998
- *Emphasis on Fluid Dynamics and Combustion*
B.S., Mechanical and Aeronautical Engineering, May 1993
- LEED ACCREDITED PROFESSIONAL certified by the United States Green Building Council
- CERTIFIED SCRUMMASTER (CSM), Dec 2019 Scrum Alliance
- Recipient of several Design Awards and Patents
- Co-author: Becerik-Gerber B, Druhora D, **Cracchiola B**, D, Gerber D, Yortsos Y, (2019) **Engineering Innovation for Global Challenges: Peacebuilding in Refugee Camps: Creating Innovators and Witnesses**
- Possess dual citizenship and passports for both the United States and Ireland