

Technology executive, electrical engineer & industrial designer with excellent communication skills, specializing in user-centered design of complex systems of hardware, software, services and process

EDUCATION

Master of Science in Industrial Design
Philadelphia University, 2013

Bachelor of Science in Electrical Engineering
Pennsylvania State University, 1990

CERTIFICATIONS

Professional Engineer, Commonwealth of Pennsylvania
License # PE070908, issued June 8, 2004

Professional Engineer, State of New York
License # 085101, issued July 31, 2007

PROFESSIONAL EXPERIENCE

Cofounder, Chief Technology Officer, Kapsul – a Techstars Boston 2018 Company, 2016 to present, Philadelphia, Pennsylvania

- Kapsul is a manufacturer of innovative, connected home comfort products beginning with a 5000 BTU window air conditioner that successfully funded through Kickstarter and Indiegogo and is scheduled for market launch in summer 2019 (www.kapsulair.com)
- Responsible for strategy and development of all electrical, electronic and Internet of Things (IoT) features and UX across the Kapsul product line and AWS IoT cloud services
- Manage a mix of in-house and contracted talent to meet development goals while also contributing my own skills in prototyping, circuit design and programming
- Oversee the electrical/electronic supply-chain of distributors, component vendors, board fabrication and assembly houses
- Develop printed-circuit board assembly test procedures, fixtures and programming
- Coordinate with mechanical engineers and other industrial designers to ensure all electrical systems integrate seamlessly with all other systems and assemblies

Principal, Likuma Laboratories, LLC, 2014 to 2016 Philadelphia, Pennsylvania

- Prior position: Design Intern, 2012 to 2013
- Product development for a wide variety of both client and in-house projects
- Designing user interfaces and electrical/electronic control systems of small/medium home and commercial appliances, including multiple patented new products
- Design and engineering-focused project management
- Prototyping and model-making

Principal Consultant, 2015 to 2016
Macro, a division of Ross & Baruzzini, Chalfont, Pennsylvania
Systems Engineer, 2001 to 2015
Clifton, Weiss & Associates, Gwynedd Valley, Pennsylvania

Highlighted Projects:

- Designed key elements of SEPTA Positive Train Control, a system that automatically prevents train accidents, including a new data network connecting primary and backup control centers with locations along 151 miles of rail lines through five counties, three states.
- Designed SEPTA Smart Stations and New Payment Technology Control Centers to improve customer experience and safety while reducing costs. Developed UI screens as well as data connections to escalators/elevators, pumps, compressors, doors/gates, fire alarms and fare vending machines at 60 subway stations to provide timely alerts of equipment problems.
- Conducted user research and developed executive strategies for implementing passenger information systems for South Florida Regional Transportation Authority. Interviewed and surveyed authority employees, observed passenger behavior at rail stations, analyzed best practices at other agencies and researched current industry technology.
- Designed an upgraded Operations Center and new Emergency Backup Center for Metro-North Railroad to improve performance, reliability and safety. Also designed IT networks connecting the control centers to 120 stations and other sites along 384 miles of rail lines in New York and Connecticut.

Systems Engineer, 1995 to 2001
STV Incorporated, Philadelphia, Pennsylvania

Highlighted Projects:

- Tested newly purchased Long Island Rail Road locomotives and passenger coaches to validate performance on 9-mile railroad test track at the Transportation Technology Center in Pueblo, Colorado.
- Performed tunnel site surveys, researched communications technologies and developed conceptual network architectures for Long Island Railroad's East Side Access to Grand Central Terminal in Manhattan.

Sales Engineer, 1991 to 1995
Unitek International Corporation, Mt. Laurel, New Jersey

- Provided engineering, business and cultural-liaison consulting services to an array of Chinese and US companies seeking to establish technology transfer relationships.

COMPUTER SKILLS: Interactive Prototyping (C, Python, Embedded Linux, Android, Arduino, BeagleBone Black), AWS IoT, HTML/CSS/JS, Adobe Creative Suite, Solidworks, AutoCAD

TECHNICAL SKILLS: Rapid prototyping, embedded systems, electronic design/prototyping, wired/wireless data networking, electrical & data wiring, welding