

Proven technology leadership, strategy & decision-making, driven directly from an organization's business goals. Entrepreneur, technology executive, electrical engineer & industrial designer with excellent communication skills.

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

Ignition Core Certification, issued February 16, 2024

4.0 Solutions Digital Factory Mastermind Program, August 2023 to present

PROFESSIONAL EXPERIENCE

Principal, Blinkenlights Technologies, LLC 2021 to present (LLC formed 2023), Philadelphia, Pennsylvania

- Consulting services including fractional CTO, digital manufacturing strategy/execution and product development for clients; pro bono entrepreneurial mentorship to early-stage startups
- Key Project: Phoenix Tailings, Burlington, MA
 - Responsible for planning, specification, build-out and programming of control systems for metal processing equipment at the first company to commercially refine rare earth metals in the western hemisphere in 40 years
 - Advising on digital manufacturing strategy, including during fundraising due diligence
 - Working with Ignition software from Inductive Automation and PLCs from Rockwell
 - Manage additional controls resources both internal and external to the company

Cofounder, Chief Technology Officer, Interim Chief Executive Officer, Kapsul 2016 to 2023 (Interim CEO from July 2022), Philadelphia, Pennsylvania

- Kapsul was a manufacturer of innovative, connected home comfort products beginning with a 5000 BTU window air conditioner that was in-market for three seasons (2020 through 2022)
- 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
- Managed mix of in-house and contracted talent to meet development goals while also contributing my own skills in prototyping, circuit design and programming
- Oversaw the electrical/electronic supply-chain of distributors, component vendors, board fabrication and assembly houses
- Developed printed-circuit board assembly test procedures, fixtures and programming
- Coordinated with mechanical engineers and other industrial designers to ensure all electrical systems integrated seamlessly with all other systems and assemblies

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

- Product development for a wide variety of both client and in-house projects
- Designed user interfaces and electrical/electronic control systems for 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. Using Wonderware System Platform, 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 new rail vehicles on a 9-mile test track at TTCI in Pueblo, Colorado
- Performed tunnel surveys, developed conceptual network architectures for LIRR's East Side Access to Grand Central Terminal

COMPUTER SKILLS: Inductive Automation Ignition, Rockwell Studio 5000, PostgreSQL / TimescaleDB, MING, Python, C, Linux, AWS IoT, Altium Designer, KiCad

OTHER SKILLS: Rapid prototyping (electronics and other), embedded systems, wired & wireless data networking, electrical & data structured cabling

ACTIVITIES: Co-Organizer of *Philly Hardware Meetup*
Mentor for Techstars and Founder Institute