

Industrial designer & electrical engineer 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

NCEES Record # 28334

## **DESIGN WORK EXPERIENCE**

### **Principal, Likuma Laboratories, LLC (Likuma.com), 2014 to present 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 control systems of small/medium home and commercial appliances, including multiple patent-applied-for new products
- Design and engineering-focused project management
- Prototyping and model-making

## **OTHER DESIGN EXPERIENCE**

### **Newell Rubbermaid, Spring 2013**

- Developed a modular organization system for the “first flat surface” of homes as part of a student team project

### **Federal-Mogul, Sealing & Systems Protection, Spring 2012**

- Led student design team to create acoustical treatments for home theaters and recording studios using Federal-Mogul’s QuietShield, an acoustic batting made from waste material

### **Armstrong World Industries, Spring 2012**

- Student team design of a non-continuous, modular ceiling system to provide quiet working areas in open, collaborative spaces

## ENGINEERING WORK EXPERIENCE

### **Systems Engineer, 2001 to present** **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.
- 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:** AutoCAD (2D & 3D), SolidWorks, Adobe Creative Suite, Interactive Prototyping (C, Python, Arduino, Processing, Android), HTML/CSS/JS

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