

Yilan Liu

<https://liu-yilan.github.io/> | liuyilan00@gmail.com | Brooklyn, NY

EDUCATION

The University of Chicago

Bachelor's of Science in Mathematics, Computer Science (Theory specialization)

Chicago, IL

June 2023

CAREER OBJECTIVE

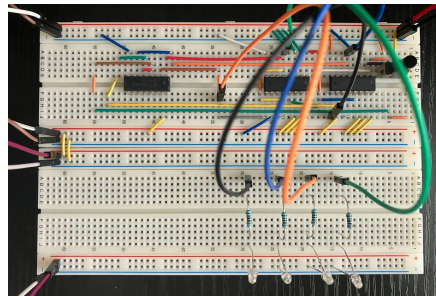
Seeking an **engineering position** in the **electronics industry**.

I started my college career attending a B.S./M.D. (combined bachelor's and medical school) program with a full ride scholarship at a small state school in Florida. However, one year in, I realized I was deeply unhappy studying medicine and the life sciences as a whole. I decided to transfer schools to the University of Chicago, where I went on to graduate with degrees in math and computer science.

Upon graduation, I decided to try something completely new and go into the film industry, which I have always had an interest in. Without meaning to, I found myself immersed in the "G&E" (Grip & Electric) subset of the industry, which concerns itself with lighting and the rigging of lights. It was there that I got hands-on with taking apart, fixing, and putting back together various electronics and hardware. Working with electronics at such a primitive level reignited my interest in computer science / physics, particularly as it relates to **digital logic circuit design, low-level computer architecture, and embedded systems**. You can find some of the projects I've done in these areas below.

PROJECTS

4-bit Counter on Breadboard



Constructing a Computer with HDL

```
// if (zx == 1) sets xIntermediate = 000...000
Mux16(a=x, b=false, sel=zx, out=xIntermediate);

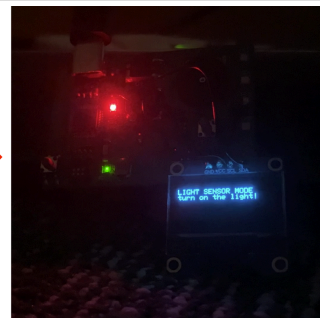
/*-----*/
// if (nx == 1) sets xFinal = !xIntermediate
Not16(in=xIntermediate, out=notXIntermediate);
Mux16(a=xIntermediate, b=notXIntermediate, sel=nx, out=xFinal);

/*-----*/
// if (zy == 1) sets yIntermediate = 000...000
Mux16(a=y, b=false, sel=zy, out=yIntermediate);

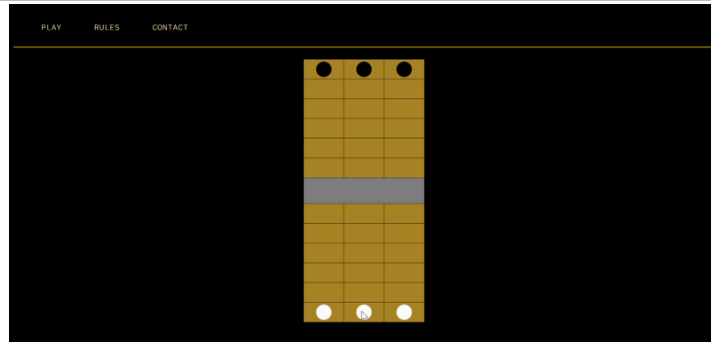
/*-----*/
// if (ny == 1) sets yFinal = !yIntermediate
Not16(in=yIntermediate, out=notYIntermediate);
Mux16(a=yIntermediate, b=notYIntermediate, sel=ny, out=yFinal);

/*-----*/
// if (f == 0) sets out = x & y // bitwise and
// if (f == 1) sets out = x + y // integer 2's complement addition
And16(a=xFinal, b=yFinal, out=xPy);
Add16(a=xFinal, b=yFinal, out=xPy);
Mux16(a=xPy, b=xPy, sel=f, out=resultFromf);
```

Study Companion PCB



[“River Game”](#) (Web Browser Game)



WORK EXPERIENCE

Film Equipment Shop & Repair Department

Lux Lighting - Film Equipment Rental House

Brooklyn, NY
Mar 2024 - current

- Take care of the entire life-cycle of repairing a film/stage light sent into our shop, from:
 - diagnosing the issue(s) based on documentation provided by the vendor's engineering team, to
 - providing technical support and ordering the necessary replacement part(s) from the vendor, to
 - communicating to the customer the service their light will receive and other recommendations we have, to
 - executing the repair (usually a board swap or housing replacement).
- Service LED lights for brands like Aputure, ARRI, Creamsource, Elation, and Rosco. Provide warranty service for Aputure, Elation, and Rosco.
- Receive trainings from vendors; certified with ARRI and Astera.
- Report to vendors on newly discovered issues and provide feedback for future iterations of their lights.

Film Equipment Rental Coordinator

The Sodium Ranch - Film Equipment Rental House

Brooklyn, NY
June 2023 - Mar 2024

- Interface with producers, DPs, gaffers, and/or other members of the production team to organize outgoing and incoming rental equipment.
- Interface with members of Local 817 to arrange for truck pick-up/return.
- Quality check equipment before they are packed on jobs.

OTHER

- U.S. Citizen