

# Gina Florence Li

ginafli7@gmail.com | [wokeupg.github.io/myportfolio/](https://wokeupg.github.io/myportfolio/) | [github.com/wokeupg](https://github.com/wokeupg)

## Education

### University of Illinois at Urbana-Champaign

May 2025

Bachelor of Science, Computer Engineering

GPA: 3.00/4.00

**Relevant Coursework:** Algorithms & Models of Computation; Computer Systems Engineering; Database Systems; Parallel Programming; Cryptography

## Experience

### iVenture Accelerator participant, Gies College of Business— Urbana, IL

June 2018 – May 2019

- Designed and assembled a prototype concussion-severity indicator using an accelerometer and Arduino Uno Rev3
- Pitched the prototype in the COZAD Entrepreneurship Competition receiving the iVenture Award and \$10,000 in funding
- Led a team of 3 to enhance prototype accuracy by integrating gyroscope data and rotational axes, collaborating with a neurologist to replace a fixed threshold with a detection equation incorporating athlete weight.

Featured on Fox Illinois and ECE ILLINOIS: <https://ece.illinois.edu/newsroom/3999>

### Starbucks Barista, Starbucks— Urbana, IL

Jan 2021 – May 2022

- Greeted customers in drive-through; voted Starbucks with the best customer service in Champaign County

### Research intern, Siebel School of Computing and Data Science – Urbana, IL

Jan 2022 – May 2023

- Developed and applied logic proofs to solve DeFi farming queries optimizing stake timing and yield in fixed intervals modeled in Excel under Professor Cosman.

### Math Tutor (K-12), Mathnasium – Champaign, IL

Jul 2023 – Sep 2023

- Provided math instruction and guided students to visualize problems through drawing and discussion, which helped them overcome mental blocks and develop a method for solving problems on their own.

## Projects

### Linux Operating System

x86 Assembly, C

- In a team of 3, we built a Linux-based Operating System from scratch.
- Specifically I worked on setting up paging and system calls, and writing the in memory read-only filesystem.
- Project Repo: [github.com/wokeupg/linux-based-OS/](https://github.com/wokeupg/linux-based-OS/)

### Convolutional Neural Network

CUDA C/C++, NVIDIA GPU

- Implemented and optimized the forward-pass of a convolutional layer using CUDA, bringing down the sum of op times to less than 10ms for a batch size of 10000.
- Project Repo: [github.com/wokeupg/applied-parallel-programming/](https://github.com/wokeupg/applied-parallel-programming/)

### Pinball Machine Diagnostic Tool

Arduino, ESP32, KiCad

- Designed and coded the mechanism for generating and detecting pulses of different frequencies through the switches of a pinball machine. Designed the circuit for protecting the ESP32 microcontroller from interference and damage from the 40V (60 Hz) frequency exuded by the pinball machine.
- Project Site: [wokeupg.github.io/myportfolio/portfolio/2SW/](https://wokeupg.github.io/myportfolio/portfolio/2SW/)

### Pet Adoption Website

SQL, HTML, CSS, JS

- Collaborated in a team of 4 to build a pet adoption platform that algorithmically matches users with dog breeds based on lifestyle data and connects them to nearby shelters and ethical breeders.
- Individually developed complex SQL queries to generate top breed recommendations and locate shelters with matching dogs, and designed the user login interface for intuitive access.
- Project Site: [wokeupg.github.io/myportfolio/portfolio/4PM/](https://wokeupg.github.io/myportfolio/portfolio/4PM/)

## Skills

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**Languages:** C, C++, SQL, SystemVerilog, CUDA C/C++, x86 Assembly, LC-3 Assembly

**Other:** AES/RSA algorithms, Microcontrollers (ESP32), GPU, Arduino, FPGA, KiCad

## Awards

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- FRC World Championships (Team 469- Las Guerrillas)
  - 2014 National Champion
  - 2015 World Division semi-finalist
- COZAD Entrepreneurship Competition Finalist
- iVenture Accelerator Award Recipient
- NSF Innovation Corps Fellow