Gina Florence Li

ginafli7@gmail.com | portfolio.com | 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:

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:

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:

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 Repo: github.com/cs411-alawini/sp25-cs411-team028-FourBrokeGirls

Skills

Languages: C, C++, SQL, SystemVerilog, CUDA C/C++, x86 Assembly, LC-3 Assembly
Other: AES/RSA algorithms, Microcontrollers (ESP32), GPU, Arduino, FPGA, KiCad

Awards

- 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