

# Frank Collebrusco

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[collebrusco.co](http://collebrusco.co)

## EDUCATION

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**B.S. in Electrical & Computer Engineering**, University of Texas at Austin  
4.0 GPA | Highest Honors

Graduated 05/2025

**Courses:** Computer Architecture, Operating Systems, Algorithms, Embedded Systems Lab,  
Data Science Lab, Multicore Computing, Software Lab, Compilers, Computer Graphics

## EXPERIENCE

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**ICT2 BRINGUP ENGINEER**.....**Apple CoreOS** – Austin, TX | 07/25 –

- <this is in the future> work on bringup firmware, bootloader, DRAM, as new silicon moves from simulator to emulator to dev board to product

**FIRMWARE ENGINEER INTERN**.....**AMD** | Epyc CPU team – Austin, TX | 05/24 – 09/24

- Developed embedded firmware for Epyc CPUs in C & a Zephyr RTOS environment
- Contributed 12 PRs and 4000 lines to firmware, the 4<sup>th</sup> and 3<sup>rd</sup> most on the team during my tenure
- Improved emulated FW reset time by >90% by debugging re-executability and enforcing in CI
- Implemented system to extract logs from emulated FW memory and save to CI, saving debug time

**EMBEDDED FIRMWARE ENGINEER INTERN**.....**Enphase Energy** – Austin, TX | 06/23 – 08/23

- Developed safety critical watchdog modules for relay firmware
- Deployed unit testing suite and wrote tests for firmware repository
- Configured emulator to emulate and test native firmware binary
- Fit in and communicated well with global firmware team

**EMBEDDED TEACHER'S ASSISTANT**.....**University of Texas ECE** – Austin, TX | 01/23 – 05/25

- Help students debug their embedded software & hardware (ECE 319K & 445L)
- Earned high reviews from students and was asked to return for multiple semesters

## PROJECTS

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### FLUID SIMULATOR & RENDERER

- Implemented an FFT based 2D fluid flow solver with C++, CUDA and OpenGL
- Wrote the 2D FFTs at the heart of the solver in CUDA to run fast on the GPU
- Created an OpenGL renderer so that the fluid can be visualized and interacted with
- The GitHub page linked above contains visuals, more details, & build instructions

### FULL PORTFOLIO

See all my latest work here. I'm always working on something gfx, game dev, embedded, audio, etc.

## SKILLS

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|------------------------|------------------------|---------------------|
| • C, C++, Java, Python | • Unix Terminal, Bash  | • Computer Graphics |
| • OpenGL, GLSL, GLFW   | • ARM, RISC-V Assembly | • Unit Testing      |
| • CUDA                 | • Git                  | • Embedded Systems  |
| • LLVM                 | • Zephyr RTOS          | • Debugging         |
| • Concurrency          | • Make, CMake          | • PCB Design        |