# Evan Goldman

Redwood City, CA 94065

✉ evangoldman10@gmail.com  •  🌐 evan-goldman.com  •  ⌨ egold010

## Education

**University of California, Riverside - Riverside, CA**                    September 2023 - Current
MS - Electrical Engineering - Machine Intelligence
**University of California, Riverside - Riverside, CA**                    September 2019 - June 2023
BS - Mathematics - Physics

## Experience

**Aviat'r Drone Club**, Computer Science Lead/Co-Founder, Riverside CA                    *November 2024 - Present*
- Manages the computer vision and autonomous navigation subteams.
- Research topics related to computer vision and autonomous navigation.
- Host weekly meetings to brainstorm competition objectives.
- Give presentations about relative topics and techniques.

**Standard Biotools**, Internship, South San Francisco CA                    *June 2024 - September 2024*
- Worked on various data science and electrical engineering projects for a mass cytometry instrument.
- Used computer vision techniques to correct small acquisition offsets.
- Used computer vision techniques to detect improperly loaded slides using a barcode camera, reducing the risk of shattering slides.
- Used spillover correction techniques to reduce the spillover between adjacent channels for data acquired from mass cytometry.
- Designed and printed general purpose 50-pin test boards for FFCs.
- Designed and implemented PCBs to convert I2C to differential I2C for sending data through the instrument in a noisy environment.
- Delivered a final presentation summarizing project outcomes and technical contributions to an audience of co-workers.

**Seer**, Internship and Part Time, Redwood City CA                    *June 2022 - September 2023*
- Developed a customer facing UI for the Hamilton Microlab STAR Liquid Handling System using HTML/Typescript for front-end and C# for back-end.
- Implemented interactive 2d and 3d liquid handler deck setup & checklist using an HTML canvas with custom 2d drawings or 3d models manipulated with Threejs.
- Implemented interactive 3d version of deck setup & checklist using HTML canvas, ThreeJS, and custom models made in blender.
- Implemented a system to display help pages for each screen of the software.
- Implemented an external tool for exporting support logs, which is launched from within the customer facing UI.
- Made key contributions to release multiple software builds by helping out in fixing over 100+ bugs, executing over dozens of test cases for software verification while working 10 hours a week within the school year to help to enable the team to release software in a 3-month cycle.
- Contributor to multiple software releases.

**Fluidigm Corporation**, Internship, South San Francisco CA                    *June 2020 - September 2021*
- Enhanced and maintained C# based engineering and manufacturing software for Biomark RT-PCR instrumentation. Fixed 130+ bugs.
- Improved C# based hardware simulation functionality for facilitating off-instrument testing of end user software.
- Used advanced WPF/C# techniques to enhance custom metrology control to view multiple datasets instead of just one dataset at a time.
- Implemented 10 Python based scripts for performing unit hardware component specification testing including pneumatics, thermal, mechanical, imaging, and barcoding.
- Implemented Python based scripts to recreate runtime errors to enable failure mode testing by disconnecting devices and putting strain on hardware.
- Designed and demonstrated a strategy for automated instrument software testing using SmartBear TestComplete.
- Participated in the software quality assurance effort and performed 100+ test cases over multiple formal software verification testing cycles.

# Skills

**Machine Learning**
- PyTorch
- Deep Learning
- Reinforcement Learning
- Computer Vision

**Others**
- Embedded Systems
- Working Knowledge in Full Stack Development
- Basic Proficiency in PCB Design
- 3D Modeling

# Portfolio

**Educational Website and Portfolio**
Link: https://evan-goldman.com/projects