



Evan S. Kahn

I am a versatile engineer with a generalist background and broad base of experience. I enjoy using hardware and software to find joyful solutions to challenging and unusual problems.

✉ contact@eka.hn

📍 Brooklyn, NY (or remote), USA

🌐 eka.hn

WORK EXPERIENCE

Software Architect

Looking Glass Factory [↗](#)

09/2017 - 05/2021

Brooklyn, NY

- Lead developer of firmware and embedded Linux image for second-gen flagship 3D display: [Looking Glass Portrait](#). Also performed R&D, systems design work, and initial scoping of UX and feature set.
- Designed and developed HoloPlay Service and HoloPlay Core: low-level software platform and API that provide a direct interface between the Looking Glass hardware and user-facing tools.
- Built camera control hardware for multi-view lightfield capture; wrote software interface to aggregate captured images into 3D image and display in real time via Looking Glass; developed and refined practical methodology for capturing 3D multiview images.
- Periodically visited Hong Kong and Shenzhen to transfer knowledge between hardware and software teams; developed understanding of overseas manufacturing, hardware R&D, supply chains, and QA.
- Responsible for US office makerspace upkeep: used and maintained 3D printers, laser cutter, and other tools.

Software Engineering Intern

Applied Minds [↗](#)

06/2016 - 08/2016

Burbank, CA

- Worked on augmented reality prototype using i.MX6 embedded system; brought up new sensors in STM32 coprocessor firmware.

Avionics Intern

Millennium Space Systems [↗](#)

06/2015 - 08/2015

El Segundo, CA

- Modeled and designed a programmable power supply instrument to simulate a solar panel.

EDUCATION

B.S. Engineering

Harvey Mudd College

08/2013 - 05/2017

Claremont, CA

- Intro to Engineering Design and Manufacturing
- Data Structures and Program Development
- Analog Circuit Design
- Digital Electronics
- CMOS VLSI Design
- Microprocessor Systems
- Engineering Clinic
- (Extracurricular) Mudd Makerspace President

TECHNICAL SKILLS

Firmware development - Arduino, STM32 / AVR

Unix - Shell scripts, webservers [↗](#) Git

Embedded Linux - Raspberry Pi and others

PCB design and assembly - KICAD, EAGLE

Native development - C / C++, CMake [↗](#) Python

C# / Unity [↗](#) HTML / Javascript [↗](#) Game dev

3D Printing / rapid prototyping

SELECTED PROJECTS

Airbreak (04/2020) [↗](#)

- Worked on small team to repurpose ResMed CPAP machines as inexpensive emergency ventilators for COVID-19 rapid response.
- Analyzed CPAP firmware and modified using Ghidra in order to raise static pressure limits and enable biphasic ventilation.
- [Worked with doctors](#) to validate that results were useful.
- Featured on [Ars Technica](#).

JoyconLib (09/2017) [↗](#)

- (For Looking Glass Factory.)
- Published a widely-used plugin to make the Nintendo Switch Joy-Con controller compatible with the Unity3D game engine, shortly after the console's release and before native support became available.

Engineering Clinic - Kaiam Corporation (09/2016 - 05/2017)

- Senior capstone project at Harvey Mudd College.
- Designed new processes and hardware to enable Kaiam, a silicon photonics manufacturer, to streamline burn-in and QA processes for optical transceivers; presented them to company executives and built prototypes.
- Project covered MEMS design/fabrication; mixed A/D circuit design; physical and thermal modeling; technical writing; firmware and software development.

CMOS Game of Life (03/2016 - 04/2017) [↗](#)

- Final project for CMOS VLSI Design course.
- Used Altera and Cadence tools to model, design, fabricate, and test an integrated circuit and carrier PCB to play Conway's Game of Life.

yapg (12/2015) [↗](#)

- Final project for Microprocessor Systems course.
- Built persistence-of-vision pixel globe using a Raspberry Pi for LED control and Spartan IV FPGA for motor control.
- Featured in [Linux User and Developer Magazine](#).