

# JULIAN HARTLINE

Tech Lead

🕒 Updated: January 12, 2024



## EXPERIENCE

Tech Lead

SamaCare

📅 Jan 2023 - Dec 2023 📍 Remote - San Francisco, CA

- Single page web application managing healthcare data and automating form and API submission (React, Typescript)
- Implemented generative AI for extraction/interpretation of incoming faxes
- Overhauled the end-to-end automated testing system and error logging to improve product quality and reduce maintenance costs
- Work performing preliminary audit on healthcare data storage/access, application security, internal processes, and minimum necessary access

Senior Software Developer

VirtualChair

📅 Oct 2021 - Dec 2022 📍 Remote - Chicago, IL

- VirtualChair is a telepresence company that uses Gather.town to host academic conferences online with a slant toward encouraging "hallway conversations" and promoting collaboration.
- Adopted a legacy codebase, refactoring, feature work, and API integrations (React, NodeJS, Gather Town API)
- Implemented continuous product discovery to help find product-market fit while pivoting with a changing market

Principal Software Engineer

Atypon Systems

📅 2010 - 2014 & 2017 - 2021 📍 Partial Remote - Sunnyvale, CA

- Client-oriented web design, implementation, and testing for SASS product (LESS, CSS, XSLT, JSP, Spring)
- Single-page WYSIWYG web application (Java, BackboneJS, jQuery UI)
- Overhauled our development process to include continuous integration/testing practices, code reviews, and build automation (NodeJS, GitHub, SVN, Maven, Jenkins)
- Overhauled our documentation build system (NodeJS, Jenkins, DITA XML)

Founder and President

HOHmBody

📅 April 2014 - May 2017 📍 Home Office

- Designed and built Reflowster, a hackable device based on Arduino that enforces reflow soldering temperature profiles on a kitchen toaster oven.
- Kickstarter funded Reflowster with 150% of the initial goal (\$15,000) and delivered a month early
- Designed and build Flickerstrip, a device that brings RGB light strips to the average consumer, with a custom PCB, injection moulded case, firmware, and accompanying app. (Arduino, NWJS, Android, Java, iOS, Objective-C)
- Kickstarter funded Flickerstrip with 260% of the initial goal (\$23,000 and successfully delivered)
- Built and maintained a cloud service for sharing user-generated "light-works" that can easily be installed on their devices

## SUMMARY

*Nimble full-stack engineer with a wide technical breadth, solid communication skills, and a passion for mentorship and cross-functional teams*

## SKILLS

Software Architecture

API Design

UI Design

Automation

Generative AI

Robotics

PCB Design

Oscilloscope

Product Discovery

Logic Analyzer

Image Manipulation

Embedded Development

Data Visualization

Test-driven Development

## LANGUAGES

JavaScript / TypeScript

HTML/CSS

Java

LESS/SASS

Python

C++

R

Bash

SQL

C#

PHP

PERL

## FRAMEWORKS

React

MUI

jQuery

Git

GQL

Arduino

Docker

Docker

AWS

Spring

AngularJS

## EDUCATION

Computer Science (BS)  
Illinois Insitute of Technology, Chicago, IL  
📅 May 2010

## REFERENCES

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Leo Tse

Tech Lead at SamaCare (2023)

@ lleoctlse@gmail.com    📞 (416) 561-8769

Libor Valenta

Engineering Manager at Atypon Systems (2010 - 2021)

@ liborvalenta@yahoo.com    📞 (408) 250-6456

Eric Sodomka

CTO at Virtual Chair (2022)

@ eric@virtualchair.net

Andrew Schwartz

Solution Architect at Atypon Systems (2010 - 2021)

@ ajschwartz23@gmail.com    📞 (914) 584-8529

## CURRICULUM VITAE (CHRONOLOGICAL)

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Tech Lead

**SamaCare**

📅 Jan 2023 - Dec 2023

📍 Remote - San Francisco, CA

- Single page web application managing healthcare data and automating form and API submission (React, Typescript)
- Implemented generative AI for extraction/interpretation of incoming faxes resulting in a 40 percentage point increase in efficacy
- Overhauled the end-to-end automated testing system and error logging to improve product quality and reduce maintenance costs
- Work performing preliminary audit on healthcare data storage/access, application security, internal processes, and minimum necessary access

Senior Software Developer

**VirtualChair**

📅 Oct 2021 - Dec 2022

📍 Remote - Chicago, IL

- VirtualChair is a telepresence company that uses Gather.town to host academic conferences online with a slant toward encouraging "hallway conversations" and promoting collaboration.
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Bag Ventilator Project (COVID-19)

**Influit Energy**

📅 2020

- Worked as the firmware engineer implementing the hardware drivers for an open source ventilator in response to the COVID pandemic
- Implemented C++ code on an Arduino-compatible board for reading inputs from flow sensors and displaying the information to a LED display
- Testing framework to simulate real-world data to bridge the gap on collaborating with a remote hardware team

Electric Vehicle Projects

**Independent**

📅 2017 - 2019

- Custom conversions to electrify skateboards including design, soldering, BOM work, 3D printing, and debugging
- Designed and built a solar charging station for mobile charging infrastructure during week-long desert excursions with electric vehicles
- Built auxiliary charging units for commercially available scooters and electric unicycles

Flickerstrip: The customizable home Wi-Fi LED light strip

**Founder at HOhmBody**

📅 2016 - 2018

📍 [tinyurl.com/flickerstrip](https://tinyurl.com/flickerstrip)

- Kickstarter funded Flickerstrip as a solo entrepreneur with 260% of the initial goal (\$23,000 from 211 backers) and successfully delivered
  - Embedded C++ (Arduino), WS2812 Neopixels, ESP32 Microcontroller, AVR Assembly Drivers
  - Parametric 3D Modeling (Solidworks) for enclosure and product design, PCB Design in Altium
  - Cross-platform app (iOS, Android, PC, web) for managing devices, creating patterns, and uploading them
  - Built and maintained a cloud service for sharing user-generated "lightworks" that can easily be installed on their devices
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## Reflowster: Soldering Controller for Surface Mount

### Founder at HOmBody

📅 April 2014 - 2016

📍 [tinyurl.com/reflowster](https://tinyurl.com/reflowster)

- Designed and built Reflowster with one cofounder, a hackable device based on Arduino that enforces reflow soldering temperature profiles on a kitchen toaster oven.
  - Kickstarter funded Reflowster with 150% of the initial goal (\$15,000 from 192 backers) and delivered a month early
  - Firmware written in C/C++ (Arduino), open sourced, and designed to be pluggable/hackable
  - Parametric 3D Modeling (Solidworks) and DFM for injection moulded enclosure, PCB Design in Altium
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## Principal Software Engineer

### Atypon Systems

📅 2010 - 2014 & 2017 - 2021

📍 Partial Remote - Sunnyvale, CA

- Client-oriented web design, implementation, and testing for SASS product (LESS, CSS, XSLT, JSP, Spring)
  - Single-page WYSIWYG webapp (Java, BackboneJS, jQuery UI)
  - Overhauled our development process to include continuous integration/testing practices, code reviews, and build automation to reduce errors, promote oversight, and create consistency (NodeJS, GitHub, SVN, Maven, Jenkins)
  - Overhauled our documentation build system to dramatically reduce manual effort (NodeJS, Jenkins, DITA XML)
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## Personal Portfolio

### Independent

📅 2009 - present

📍 [github.com/julianh2o](https://github.com/julianh2o)

- (2023) GPT-Tools, a variety of scripts and experiments for leveraging generative AI
  - (2022) Party Jenga, webapp to turn a mundane Jenga set into a party
  - (2020) Drawmon a JavaScript implementation of the popular "Folded Paper Monster" game
  - (2019) RokuAlexaLambdaSkill an Alexa skill that allows you to control your Roku with your voice (before convenient API functionality existed)
  - (2015) OrodoroInterface a tool for streamlining the process of creating shipping labels when delivering Kickstarter rewards
  - (2015) A number of Arduino Libraries aimed at streamlining development on the ESP8266
  - (2014) MicropartMonster an inventory management tool for simplifying the process of ordering electronic components
  - (2010) Scorched Earth, a tank warfare game written in C++
  - (2009) Gravity, a physics toy/game, written in C++, in which orbital physics and ship parameters determine the victor
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## Java Developer

### Vorpalware

📅 May 2008 - August 2008

- Summer job converting a startup's Swing application from a XML data store to using a SQL-based store
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## Podbase

### Independent

📅 2007 - 2018

📍 [podbase.net](https://podbase.net)

- Scientific image database written initially in PHP and then overhauled in Java using ImageJ
- Provides analysis features such as image adjustments (via ImageMagick) and measurements
- Additional features include metadata organization, search functionality, indexing, and multiple projects and access control

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## Bachelors of Science in Computer Science

### Illinois Institute of Technology

📅 Aug 2006 - May 2010

📍 Chicago, IL

- Merit-based scholarship covering most of the 4yr tuition
  - Projects including: network code for a multiplayer game, implementing low level tools such as malloc and http proxy
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## Personal Website

### Independent

📅 2005 - present

📍 julianhartline.com

- (2014-present) Personal portfolio running Jekyll and hosting links to my various endeavors
  - (2010-2014) Repurposed as a web portfolio including Java and C++ applications, Resume hosting, miscellaneous projects
  - (2005-2010) Various PHP Projects, forum, guestbook, content publishing, Flash and Java Applet projects including physics simulations, fractal generators, and games/toys
  - (2005-2010) Various Z80 Assembly language programs written for Ti83 calculators
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## Highschool

### Mid-Pacific Institute

📅 2002 - 2006

📍 Honolulu, HI

- Independent study of AP Computer Science
- Honor Roll, Math Team, Chess Team, Sailing Team
- Robotics Team: Bot Ball (Lego hardware, C++ software, computer vision with blob tracking)