

CARL VOLLER

Web Developer, Designer

DETAILS

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EMAIL

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DATE OF BIRTH

05-01-2004

NATIONALITY

Singaporean

LINKS

[Portfolio](#)

[Linkedin](#)

[Instagram](#)

SKILLS

HTML & CSS

JavaScript

Swift

ReactJS

NextJS

GatsbyJS

Python

MongoDB

NodeJS

PROFILE

I'm a Web Developer with a strong interest in Application Development, DevOps and Cybersecurity. I would describe myself as a confident presenter with a spark for innovation and solving problems using programming.

I've been programming since I was 12 when I made my first website using HTML, CSS and Javascript. Since then, I've made numerous websites and apps for all sorts of causes. I am currently pursuing a career in the Application Security industry as I believe that security is at the forefront of all our technology, and I would like to one day be at the forefront of my industry. On the side, I teach web and mobile development in various different courses. I also do freelance Web / iOS Development and Design.

In my free time, I dabble a little in music, linguistics and swimming or running.

EMPLOYMENT HISTORY

Founder and Head Developer, CodeCollab

Sep 2017 — Present

Created CodeCollab (<https://codecollab.io>), a collaborative code editor and compiler that allows users to test and run code in an online real-time environment. Think of it like a Google Docs but for code. In charge of leading the development team, developing the main product, designing most of the User Interface and handling Marketing Presentations.

CodeCollab was developed using NextJS on the front-end and is powered by a NodeJS / Golang backend hosted on Google Cloud Platform. The project is partly inspired by the Vscode interface, utilising a number of underlying technologies from the Vscode project such as the Monaco Editor and XTerm.

Programming Instructor, Tinkertanker

Jun 2021 — Present

Instructor for Primary, Secondary and JC schools in the following topics:

Docker

PHP

C++

LANGUAGES

English



Chinese



Spanish



German



- Web Development with HTML, CSS and JS
- Unity Game Development
- iOS Development with Swift
- Cross-Platform Development with React Native
- Micro Controllers with Micro-bits and M5GOs

Trainer and Assistant for SMU SkillsFuture courses on:

1. Web Development with PHP/Laravel and jQuery
2. Cross-Platform Development with React Native and Flask

Freelance Web / iOS Developer and Designer

Jan 2021 — Present

Project #1: Swift Innovators' Summit Website (<https://swiftinsg.org>)

Prototyped, wire-framed and designed the website for Apple's annual Swift Innovators' Summit using Adobe XD following Apple's design guidelines. Developed this website using Gatsby (React) and SCSS.

Project #2: Tinkercademy (<https://tinkercademy.com>)

Used Webflow to design a new landing page and connected website content to their internal CMS databases.

Project #3: BERNINA Singapore with Tinkertanker

Currently working on an iPadOS application that converts digital drawings by the Apple Pencil to stitches sent to a BERNINA Machine. The app allows users to convert drawings of stitches into actual stitches on real-life clothing. Also developed a Swift Playgrounds Book that allows children to use turtle-like programming to create stitches that can also be sent to a BERNINA Machine.

Technical Officer, Ministry of Education, Singapore

Mar 2022 — Jun 2022

Web Developer under the Flexi-Relief Technical Officer (HQ) scheme.

Developed web-based tools to help MOE Teachers build dynamic simulations of science experiments for the Student Learning Space (SLS) without needing any prior programming knowledge.

Created the Drag-and-Drop Simulation Builder interface using Typescript and Create React App.

Web Developer, OutsideApp

Nov 2019 — Jun 2021

Front-end Web Developer for OutsideApp, a Singapore-based start-up. In charge of developing and maintaining the web aspect of the OutsideApp application using NextJS. Working product can be seen at <https://web.outsideapp.co>

President & Chief Technology Officer (Web), SST Inc

Jun 2019 — May 2020

I lead the Executive Committee in running the organisation, hosted guests through presentations/tours as well as promoted a bonded and united culture within the organisation's members. I was also in charge of maintaining the organisation's website as well as promoting web development within the organisation.

EDUCATION

O Levels, School of Science and Technology, Singapore

Jan 2017 — Dec 2020

Diploma in Cybersecurity and Digital Forensics, Nanyang Polytechnic

Apr 2021 — Present

COURSES

Swift Accelerator Program, IMDA, Apple Inc

Mar 2018 — Nov 2018

AWARDS

SG:D Techblazer Awards 2019

Nov 2019

The SG:D Techblazer Awards is the nation's highest accolade for tech innovation and aims to provide recognition and endorsement to Singapore-based organisations that have exemplified the spirit of innovation in their development of tech products and services, or their use of tech to achieve excellence.

My partner and I achieved the Silver Award for the Student Category of this award, being the youngest ever recipient in this award's history.

Read the business times article here:

<https://www.businesstimes.com.sg/hub/sgd-techblazer-awards/unlocking-the-potential-of-artificial-intelligence>

Watch the YouTube Interview here:

<https://www.youtube.com/watch?v=RkQ674J268w>

Australian Informatics Olympiad 2019

Sep 2019

The Australian Informatics Olympiad (AIO) is an open national computer programming competition held annually. Students write short computer programs to solve six problems that vary in difficulty.

In 2019, I achieved the Bronze Award for this Competition

Apple's WWDC Swift Student Challenge 2022

Jun 2022

In 2022, I submitted an App where users have to write down compliments on a drawing board, then the app will detect the words written and generate a sentiment score based on the compliment. If the sentiment score is high enough, it is added to a list of compliments. Afterwards, the user has to bring their iPad up to people and when the app detects that a person is in view or frame, the user can click on a compliment they've previously written and the app will voice out the compliment and increment a score value.

The idea for the app was to leverage the various Apple Development Kits to create a wholesome app that encourages people to go around and give people compliments.

Technology used: SwiftUI, UIKit, PencilKit, CoreML, AVFoundation, NaturalLanguage, Vision