

David Simowitz

Brooklyn, NY | david.simowitz@gmail.com | +1.848.227.1982
linkedin.com/in/davidsimowitz | github.com/davidsimowitz | davidsimowitz.dev

Skills

Languages/Tools

- Python, JavaScript, SQL, HTML, CSS
- Docker, Kubernetes, Jenkins, CircleCI, Flask, Vagrant, Git, AWS

Projects

Cloud DevOps Capstone Project

- Created a CI/CD pipeline to automate a rolling deployment strategy for a containerized web application using Jenkins, Docker, Kubernetes, NGINX, and Amazon EKS (Amazon Elastic Kubernetes Service).
- Implemented continuous integration to lint web application, containerize it, scan image for vulnerabilities, and store it on an image registry after validation.
- Set up continuous deployment to deploy/update a Kubernetes cluster running the Docker container.

Operationalize a Machine Learning Microservice API

- Containerized a flask app with Docker, that predicts housing prices in Boston using a pre-trained scikit-learn model.
- Set up continuous integration using CircleCI to automate the process of building the testing environment, installing software dependencies, and building/validating the Docker image.
- Deployed the Docker container to a local cluster using Kubernetes.

Deploy a High-Availability Web App using CloudFormation

- Created and deployed the infrastructure necessary to run a high-availability web application using AWS CloudFormation, distributed across multiple availability zones to increase fault tolerance.
- Increased application availability and decreased unused capacity by automating the process of launching/terminating instances to better match resources needed to handle the current traffic demand and save on infrastructure expenses.
- Converted business requirements into cloud architecture diagram using Lucidchart as part of requirements analysis.

Build and Host a RESTful Web Application

- Designed and built a responsive, RESTful web application with persistent storage for users to view upcoming events using Python, Flask, SQLAlchemy, Jinja, PostgreSQL, JavaScript, HTML, and CSS run on an Apache web server.
- Implemented user authentication and authorization to protect against CSRF (cross-site request forgery) attacks, to verify event ownership before updating/deleting events, and to enable users to mark events as attending/considering.
- Secured web application server against a number of attack vectors and automated the process to check for, update, and install security packages each day to prevent system from being exploited through known software vulnerabilities.
- Achieved performance score of 100 using Lighthouse in Chrome DevTools.

Single-Page Map Application with Asynchronous API Requests

- Built a single-page, responsive map application with JavaScript, Knockout, HTML, and CSS that allows users to view a list of neighborhood establishments and display venue data sourced from Foursquare API.
- Implemented list filter to update map markers—from Google Maps API—and list locations with respect to search input immediately on each keystroke or other text entry mechanism.

Experience

Fidessa

System Specialist

New York, NY

August 2011–July 2015

- Prioritized, designed, tested, and deployed customized solutions using Tcl, SQL, Java, and proprietary programming languages to satisfy client-driven requirements.
- Translated client goals into clear engineering requirements which could be tested against to prove adherence.
- Expedited delivery of solution to critical red flag issue across 100+ clients concurrently, minimizing clients' risk exposure from potentially weeks down to a single day.

Education

Udacity—Nanodegree, Cloud DevOps Engineer

2020

Udacity—Nanodegree, Full Stack Web Developer

2018

State University of New York at Stony Brook—Bachelor of Engineering, Computer Engineering

2010