Zach Denton

EMAIL: z@chdenton.com
GITHUB: github.com/zacharydenton
WEBSITE: zach.se

TIMELINE

GOOGLE — 2016–

Software Engineer

I'm a front-end engineer building UI infrastructure used in many Google products, including the next version of AdWords. I focus on client-side performance and new web technologies.

SCRIBD — 2015–2016

Software Engineer

I built the front-end for the new sheet music product, lead development of the mobile website, implemented new designs for important pages like the book info page and various landing pages, and engineered several successful "growth hacks" and other improvements.

SCRIBD — 2013–2014

Intern - Software Engineering

I rewrote the JavaScript-based EPUB renderer to support large (50MB+) books on low-powered devices, ported Scribd to Windows Phone and the e-ink Kindle web browser, and implemented a series of changes which increased signups by 150%.

DARTMOUTH COLLEGE — 2011–2014

Computer Science

SKILLS

ADVANCED

Python, JavaScript, CSS

INTERMEDIATE

Dart, Elixir, GLSL, Ruby, SQL

BASIC

Haskell, Clojure, C, C++, TensorFlow, Perl, Java

ADDITIONAL EXPERIENCE

hackathons – 1st place, HackPrinceton 2012; PennApps 2013; HackMIT 2013; DAX v.2; Quora ML CodeSprint 2013; Greylock Hackfest 2; TechCrunch Disrupt SF 2013; HAMR in the Woods.

open source – In addition to over 40 of my own projects, I've contributed to Meteor, autoprefixer-rails, python-readability, beets, tuna.js, and whatmp3.

project euler – I've solved around 100 Project Euler problems, mostly in Haskell.

spoken languages – English & Swedish.

FEATURED PROJECTS

Packlane
packlane.com

Packlane is a website for designing and purchasing custom packaging. I built the WebGL-powered box design interface, an image processing system with full color management support, and the prepress automation infrastructure and web backend written in Elixir.

Noisehack
noisehack.com

Noisehack is my blog about audio and music hacking. Topics include emulating analog synths in the browser, audio visualization with GLSL shaders, custom DSP effects with the Web Audio API, and algorithms for generating noise in JavaScript.

Grepstream
grepstream.com

Grepstream is a movie search engine built with Meteor, Python, and Elasticsearch. It's designed to be fast and flexible: for instance, you can use it to find all the comedies that have an RT rating of 80% or above that are legally available to stream for free (e.g. on Hulu or Netflix).

wavebender
zach.se/wavebender

wavebender is a Python library for audio synthesis, based around the concept of audio as infinite streams. To generate audio, you compose basic streams like sine and square wave generators, and then wavebender converts the stream representation into WAV.

noise.js
zach.se/noisejs

noise.js is a JavaScript library that extends the Web Audio API by providing noise generators. It currently includes generators for white noise, pink noise, and brown noise, which can either be used as audio sources or for modulating other Web Audio nodes.

Strindberg
strindberg.in

An online document editor built with Meteor and pandoc. Write in any markup language you like; render to any output format you need. Documents are preserved as you type in a custom version control system built inside of MongoDB. Winner of HackPrinceton 2012.

Mandelbro
mandelbro.com

A music visualizer that runs in your web browser, combining Web Audio (for audio analysis), WebGL (several different shader-based visualizations are included), SoundCloud, and the WebMIDI API (to control the visualization with a hardware controller).

Course Picker
courses.hackdartmouth.org

A web app which lets you search for classes based on student reviews, median grades, and other criteria. Most Dartmouth students use it when shopping for classes. I built the front-end and a scraper to extract information from the course catalog.