

David Dahl

SUMMARY

Long time HTML superfan, python *nerd* and node.js *enthusiast*, I have worked as a developer, engineering manager, researcher and fundraiser - at micro and macro scales.

EXPERIENCE

Grove.co <https://grove.co> (Durham, NC)

Senior Software Engineer II, 2019 - present

- ▶ Helping scale Grove's database, engineering tools and team. Postgresql, Django, Docker, AWS, RDS

IBM <https://ibm.com> (Durham, NC)

Software Engineering Researcher, 2017 - 2019

- ▶ Design and implementation of systems to help IBM with web security, privacy, internal tooling and web standards
- ▶ Worked with IPFS decentralized P2P filesystem & related technology, see: See IPFS Social Proof: <https://bit.ly/2Pc7GkB>
- ▶ Implemented GDPR tracking tool which surfaces compliance status to management
- ▶ Created application based on Lighthouse & browser User Timing API to understand and rectify web page performance issues

Advisory Software Engineer, 2016 - 2017

- ▶ Built parts of IBM.com, IBM.com search using SearchKit, TypeScript and React

SpiderOak <https://spideroak.com> (Chicago, IL)

Director, Crypton project, 2013 - 2016

- ▶ Directed an engineering team building a privacy framework for mobile devices
- ▶ Source code: <https://bit.ly/2JdzsGW>
- ▶ Wrote code for the Crypton framework (Node.js, PostgreSQL)
- ▶ Built *Klook* private social network application for iOS and Android

Mozilla Corporation <https://mozilla.org> (Mountain View, CA)

Senior Software Engineer, Privacy, 2012 - 2013

- ▶ Worked on new and existing browser features and WebAPIs to increase user privacy
- ▶ Worked on implementing DOMCrypt in Gecko/Firefox, which was an initial strawman proposal for the W3C Web Cryptography Working Group, <https://bit.ly/2JcCS0M> <https://mzl.la/2JhUzb2>
- ▶ Implemented `window.crypto.getRandomValues` in Firefox, <https://mzl.la/2JhP0JO> <https://mzl.la/2HkvQRR>

Firefox Engineer, 2009 - 2012

- ▶ Created front-end browser features, developer tools, identity APIs
- ▶ Implemented the original Web Console developer tool, <https://mzl.la/2JrzPBg> <https://mzl.la/1lOQVno>

Industrial Light + Magic <https://ilm.com> (San Francisco, CA)

Software Engineer, 2007 - 2008

- ▶ Built Python / Django / ffmpeg-based tools for training artists, software engineers and other technical staff at ILM, LucasArts, Lucas Animation and Lucasfilm

SKILLS

Expert with Linux, Python, JavaScript, CSS, HTML, SQL, automated testing
Node, Express, npm & yarn, webpack, TypeScript, React, Django
Postgresql (including replication), MySQL, SQLite, Redis
PhoneGap / Cordova, CouchDB / Cloudant
Evaluation and recommendations for technology, teams, business processes
Very Experienced with:
C, C++, make, Android toolchain, iOS toolchain, build process
Hobby programming with:
Raspberry Pi, hardware sensors, etc. <https://github.com/daviddahl/radar>
Tinkering with:
Bitcoin, Ethereum, IPFS and related tools / frameworks

TALKS / WRITING / TEACHING

Defcon 23: Crypto Village: **Anti-social Networking**
▸ Presentation on the Kloak application I implemented that functions like Twitter but is **end to end encrypted**
▸ <https://bit.ly/2JoSNbu>
Future Insights Live: **Privacy is a UX Problem**
▸ Privacy is not simply a technical issue. More designers are needed to solve privacy application issues
▸ <https://bit.ly/2Jr80Jd>
Hack in the Box Malaysia: **Crypton Workshop**
▸ <https://bit.ly/2JaB2JC>
▸ Live-coding workshop on **Crypton**
Crypton Whitepaper
▸ Crypton paper produced for Hack In The Box conference
▸ <https://bit.ly/2Jbubjg>
Kloak Private Social Networking Application: Slides
▸ Produced for **Investors and Management**
▸ <https://bit.ly/2sorG6P>
Cato Institute: "NSA Surveillance: What We Know; What to Do About It"
▸ Sat on the technology panel
▸ <https://bit.ly/2xO8IAS>

REFERENCED WORK

W3C Web Cryptography API Working Group covered <https://amzn.to/2ZfTWXh>
▸ **Engineering Rules** Global Standard Setting since 1880
▸ Joanne Yates and Craig Murphy, 2019 ISBN: 978-1-4214-2889-5
▸ Johns Hopkins University Press, Baltimore
▸ Ch. 8, **Development of the W3C WebCrypto API Standard**, 2012-2017

AWARDS

2018 IBM: Eminence and Excellence in Engineering Award

LINKS

Website
▸ <https://txt.ist>
Latest Résumé
▸ https://txt.ist/David_Dahl_resume.pdf