

Alexander Hoekje List

portfolio <http://alist.github.io>

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engineering C++, Swift, Node.js, Obj-C, Java, Python, Eagle CAD

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- Experience**
- Technical Lead, iOS** Ideaflow Inc. 5/2017 - Current
- Implemented text storage refactor by developing a formal grammar and parser.
 - Led interviews and onboarding, established continuous integration.
- Undergraduate Researcher** MIT Programming Languages Group 1/2017 - 3/2017
- Analyzed SoftBoundCETS C pointer safety system. Documented control flow for this LLVM compiler pass.
- Node.js, C++ and Blockchain Engineer** MANNA Inc. 6/2015 - 01/2017
- Implemented algorithm optimizing drone flight paths over airspace of individual property holders. Properties are registered in smart contracts on a blockchain.
 - Engineered MANNA's distributed blockchain servers and API server.
- iOS for Designers Instructor** Codepath Inc. 5/2015 - 7/2015
- Gave lecture, ran study sessions, wrote tutorials, guided group projects and solved 100s of bugs for twenty designers from Facebook, Uber, Instacart and Pinterest.
 - Empowered designers to implement their designs as native iPhone applications.
- iOS Engineer** Gigster Inc., E55 Inc. 4/2015 - 2/2016
- Built realtime navigation module with off-route detection and Dijkstra route optimization for kids' carpool App. Mentored a junior engineer on code patterns.
 - Developed two social media applications with pictures and video.
 - Engineered a low-dependency Objective-C framework containing image recognition APIs for iPhone Apps, enabling E55's customers to integrate in under an hour.
- CEO and Co-founder** Headtalk Inc. 1/2014 - 9/2015
- Raised \$140k in venture capital, participated in Techstars' Boston accelerator.
 - Engineered usemagnet.com, PCBs and the iPhone App for Magnet bracelet.
 - Led team of three engineers and three designers to deliver Apps for Android and iOS, two wearable devices and a Kickstarter campaign.
 - Arranged Headtalk's acquisition in September 2015.
- Wearable Nonverbal Communication** MIT AI Research 12/2013 - 9/2015
- Created way to use wearable devices to communicate nonverbally through EEG, Apple Watch, Pebble, iPhone and Magnet bracelet.
 - Enabled "telepathy" by applying Coen's Multimodal Perception AI to wearable devices, in a framework combining multiple wearables to reduce false positives.
- Swÿp** MIT Media Lab, Fluid Interfaces Group 9/2011 - 12/2012
- Created Swÿp allowing files to be dragged between touch screens.
 - Engineered send-ahead thumbnail system to improve UX during payload transfers.
 - Led three engineer team to Sponsor Week, delivering seven articles in the press.
- Co-founder** ExoMachina Inc. 1/2009 - 12/2013
- Led two engineers for Domo, a website mapping struggling MIT students' questions with advice from peer volunteers, delivering in time for finals.
 - Built the paid Fibromyalgia App with clinical psychiatrist co-founder, helping hundreds of people suffering from the chronic pain disorder track their symptoms.

Achievements	Apple Design Award, Recipient for Mosaic.io	6/2013
	Bump API contest, Honorable Mention for peer to peer payments with a bump.	2/2010
	Top-20 Navigation App on App Store, PlaceBook, Developer	1/2009
Education	MIT: Bachelor of Science in Computer Science	2011 - 2017
Selected Courses	MIT: Intermediate Computer Algorithms	2017
	MIT: Computer Language Engineering (built a C-variant compiler, using the Haskell language)	2016
	MIT: Aerospace engineering 'Unified' core curriculum	2012 - 2013
	Drexel University: Human Computer Interaction, C++ levels 1 and 2	2006 - 2008
Continuing Education	MIT: Introduction to Computer Graphics (ft. C++, linear algebra and OpenGL)	2017