Alexander Hoekje List

portfolio http://alist.github.io
email alist@alum.mit.edu
engineering C++, Swift, Node.js, Obj-C, Java, Python, Eagle CAD

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Experience

Technical Lead, iOS Ideaflow Inc.   5/2017 - 1/2018
- Developed formal grammar and parser for relational note-taking App.
- 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: Masters of Engineering in Computer Science	2018 - 2020 (expected)
	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	East Coast Aeroclub: Private Pilot School, Hanscom Airport	2018 - present
	MIT: Introduction to Computer Graphics (ft. C++, linear algebra and OpenGL)	2017