Joel Gustafson

218.491.3039 | joelg@mit.edu | joelg.org

Motivation

I want to make computing universally accessible as a medium and an art. I believe in direct manipulation of data, augmenting human intellect, and dynamic, interactive documents, unlike this one.

Education

Massachusetts Institute of Technology — 2014–

Candidate for Bachelor of Science in Computer Science and Engineering

Class of 2018 | 4.8 cumulative GPA | 4.8 major GPA

Coursework in algorithms, artificial intelligence, complexity, and computer architecture. Graduate seminars at the MIT Media Lab in AI, HCI, and magic.

Experience

Undergraduate Research – MIT Media Lab — 2015-

Designer, backend, and frontend developer across multiple projects since Spring 2015. Recruited and led a team of other undergraduate researchers.

Architected and implemented a modular plugin system to let researchers embed interactive data representations of arbitrary assets inside digital publications.

Designed and developed a media database dashboard with dynamic visualizations and search/query tools, with a graphical JSON object explorer.

Nominated for Media Lab's first ever "License to Hack" award.

Skills

Languages	Software	Interests	Heroes	Fun
JavaScript	React, Flux	HCI, UI	Alan Kay	Tennis
Scheme	D3, Three.js	AI, NLP	Bret Victor	Debate
Python	Node, Webpack	VR, AR	Ted Nelson	Card games
Java	Firebase, ~~Parse~~ RIP	Acronyms	Doug Engelbart	Hiking

Projects

nDimensional, an open-source software studio for prototyping radical UI concepts:

- *GRASP*, a 3D graphical dataflow visualization for Lisp code
- *Visual History*, a chrome extension that delinearizes the browser's back/forward stack and visualizes walks on the internet graph instead
- *Prototypical*, an n-dimensional spreadsheet with flexible projections disguised as a note-taking app (ongoing)

Magic Deck, an NFC-tagged deck of playing cards and companion Android app for technology-enhanced magic tricks

Numerous collaborations with communications researchers at UC Santa Barbara:

- Predicted outcomes of political elections with higher accuracy than traditional polls using Wikipedia page view and edit statistics
- Analyzed reciprocity of favors on Twitter ('quid pro quo favorites')
- Quantified sensationalism in news headlines with natural language processing