# Joel Gustafson

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## 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, and maybe also a math degree, but we'll see how that goes

Class of 2018 | 4.5 cumulative GPA | 4.6 department GPA

Coursework in algorithms, algebra, complexity, and symbolic programming; graduate seminars at the MIT Media Lab in AI, HCI, and magic

## Experience

### MIT Media Lab — 2015–

Designer, developer, and architect on multiple projects in the Viral Communications Group since Spring 2015

Super Glue (2015): wrote metadata extraction modules and designed a visualization and exploration dashboard for a media analysis pipeline

PubPub (2016): designed and implemented a novel, composable idea-oriented network architecture for an open academic publishing platform

### MIT Computer Science and Artificial Intelligence Lab — 2016–

Worked with Professors Gerry Sussman and Jack Wisdom to build a Scheme IDE in the browser for a computational physics class with a powerful interactive visualization framework

Joined the Software Design Group in Fall 2016 to work on an object-oriented spreadsheet interface and a visual formula composition tool

## Skills

| Languages | Software | Interests | Heroes | Fun |
|---|---|---|---|---|
| JavaScript | React, Polymer | AI, NLP | Alan Kay | Tennis |
| Scheme | D3, Three.js | UI, HCI | Ted Nelson | Debate |
| Python | Node, Webpack | VR, AR | Doug Engelbart | Card games |
| Java | Emacs, Unix, Git | Acronyms | Bret Victor | Magic |

## Projects

*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

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
- Quantified sensationalism in news headlines with natural language processing