

Ben Wedin

Cambridge, MA 02142

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EDUCATION

Carleton College – Northfield, MN

Class of 2016

Bachelor of Arts in Biology and Computer Science, Magna Cum Laude (GPA: 3.86)
Honors: Phi Beta Kappa, Sigma Xi

SELECTED WORK EXPERIENCE

Computational Associate – Connectivity Map, The Broad Institute of MIT and Harvard

Cambridge, MA

September 2016 - Present

- Develop domain-specific analysis suites using D3 and the heatmap visualization library Morpheus
- Automate analysis reports to monitor and detect failure modes of machine learning algorithms
- Work with designers to develop interactive visualizations for high-dimensional datasets
- Create user interfaces in Backbone to track, evaluate, tag, and request new experiments
- Maintain and release new software for [clue.io](#), a web platform for biological analysis with over 3000 users
- Technical lead for Command, a webapp on clue.io that allows access to data from over 1 million experiments
- Devise and implement new database schemas in MySQL and MongoDB

High-Throughput Screening R&D Intern – Amyris

Emeryville, CA

June 2015 - August 2015

- Developed data entry and visualization tools in R to monitor pipeline procedures
- Improved data quality in the screening pipeline by proposing and validating a new screening procedure
- Utilized SQL databases and R to analyze data from automated technologies

SELECTED PROJECTS

Mosaic – Interactive Algorithm Art

Interactive webapp to create art, tessellating colorful shapes or machine learning features from GoogLeNet. Written in CSS, HTML, Javascript, and the p5.js library.

Code and live version: benwedin.com/mosaic

Video Commixer – Real-time Video Mixer

Video DJ software that allows users dynamically blend and filter video in realtime. Written in C++ using the OpenCV library.

Code and example video: benwedin.com/videocommixer

Sensorscape – Carleton Computer Science Senior Project

Audiovisual installation that is modulated by a network of wireless sensors. Written in a group with four others using Arduino, Python, Javascript, and the p5.js library.

Code and example video: benwedin.com/sensorscape

SKILLS

JavaScript – ECMAScript 7, jQuery, D3, Node, Testing frameworks (Sinon, Mocha, Chai), webpack, Grunt, Backbone, p5.js, Express, plotly.js

HTML/CSS – Bootstrap, Pug/Jade, Responsive Web Design, SASS

APIs and Databases – RESTful APIs (LoopBack), Object-relational mapping, MongoDB, MySQL

Cloud Computing – AWS: EC2, Batch, Lambda, S3, IAM, Python and Node SDKs, Starcluster

Python – NumPy, Pandas, SciPy, Seaborn, Pillow, Flask

C/C++ – OpenCV, CMake

Matlab/R – Unit testing, Object-oriented programming, R Shiny

Processes – Agile/Scrum frameworks, User research/testing, Design reviews, Code reviews

Development Tools – Git, IDEs (PyCharm, WebStorm), Jenkins, Interactive notebooks (Jupyter, Observable)

Productivity Software – Adobe Creative Suite, Trello, Google Drive, Microsoft Office