

# Jonathan Mares

## contact / social

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## languages

English | Russian (fluent)  
Hebrew (fluent)

## computing

Python\* | JavaScript\* | C  
PHP | OCaml | Java

## backend

Meteor\* | Flask | Django  
Jekyll\* | MongoDB | SQL

## frontend

Blaze\* | Angular 1 | React  
Backbone | Mustache  
jQuery | Less | D3.js  
Bootstrap\* | Materialize\*

## dev ops

Git\* | Galaxy\* | Heroku  
Passenger | Docker

## tools

Chrome Dev Tools | LaTeX  
Grunt | Mathematica

## current courses

Computational Genomics  
Operating Systems  
Artificial Intelligence  
Numerical Analysis

## completed courses

### Computer Science

Analysis of Algorithms  
Systems Programming  
Functional Programming  
Java & Data Structures  
Discrete Structures

### Chemical Engineering

Unit Operations Lab.  
Fluid Mechanics  
Heat & Mass Transfer  
Kinetics & Reactor Design  
Separation Processes  
Process Dynamics

## organizations

Kappa Sigma Fraternity

## activities

Motorcycles | Bicycles  
Jazz | Classical | Piano  
Civilization 5 | Watersports

\* = proficient

## education

May 2017 **Cornell University**, Bachelor of Science; GPA: 3.01  
Double Major in Chemical Engineering & Computer Science

Ithaca, NY

## industry experience

- Summer '16 **Wayfair** – *Software Engineering Intern* Boston, MA
- Rebuilt customer facing Address Book feature
    - Enabled client side add/remove/edit features with *Backbone* & *Tungsten.js*
    - Redesigned page architecture: Wrote *PHP* & frontend *Tungsten.js* MVC components & implemented *Mustache* templating
  - Overhauled internal order search page used by thousands of employees
- Spring 2016 **Pfizer** – *Software Engineering Associate* New York, NY
- Designed, built, & launched an internal full stack *JavaScript* web app in *MeteorJS*
    - Converted customer business requirements such as drag-and-drop and mobile compatibility into technical specifications
    - Designed UI with *Materialize* & built frontend with the *Blaze* *JavaScript* library
    - Utilized *Meteor* & npm packages such *Autoform*, *iron-router*, & *dragula.js*
    - Stored data with *MongoDB* & enforced schemas with *simple-schema* package
    - Configured custom deployment on Red Hat Linux with *Passenger*
  - Upgraded internal site to implement *Angular 1* & conform to mobile first standards
  - Acted as Business Analyst on an internal platform. Focused on improving front end & implementing *Material Design* standards.
- Summer '14 **Novartis Vaccines** – *Process Engineering Intern* Research Triangle Park, NC
- Summer '13 **IPS- Integrated Project Services** – *Project Engineering Intern* Somerset, NJ
- Summer '12 **Hi-Tech Pharmacal** – *Validation and Technical Services Intern* Amityville, NY

## freelance

- 2015 - Now **MaggioMares Software** – *Full Stack Developer* [maggiomares.com](http://maggiomares.com)  
Co-started shop specializing in fast, responsive, & lightweight websites for small businesses (Clients include restaurants, real estate agents, & other professionals).
- 2015 - Now **Mares Tutoring** – *Private Tutor*  
High School & AP level Math, Chemistry, Physics, & Computer Science subjects.

## computing projects

- July 2016 **dineR** – *Team Lead & App Architect* [dinerapp.tk](http://dinerapp.tk)  
Tinder for meals near you. Built a *Meteor Ionic* app with *React* at Wayfair's company wide hackathon. Presented to the CEO & CTO. Only intern team to win as finalists.
- October '15 **LiveGroceryList** [livegrocerylist.tk](http://livegrocerylist.tk)  
A *Flask* app to share grocery lists with family members. Heroku & *PostgreSQL*.
- January '15 **ReadMe-dot-Text** HackCooper @ Cooper Union, NY  
Hackathon app that converts images into speech for the visually impaired. Built on IBM *Bluemix* with *Watson* text-to-speech API, *Leap Motion* for gesture recognition, and *ABBYY FineReader* for optical character recognition. IBM API prize winners.

## research & chemical engineering

- 2013–2016 **Putnam Lab Group** – *Drug Delivery Researcher* Cornell University, Ithaca, NY
- Designed and ran experiments to define a new hydrogel material
  - Conducted spectroscopy, protein release, and hydrogel degradation
  - Publication: Ricapito, N., **Mares, J.**, ... (2016), Insight into the Unexpected Degradation of Dihydroxyacetone-Based Hydrogels. *Macromolecular Chemistry & Physics*.
- Spring 2015 **Capstone Chemical Process Design** Ithaca, NY  
Prepared a full scale feasibility study of a Penicillin production process. Technical work included reactor and distillation column design, *Aspen Plus* simulations, a robust process flow diagram, and economic analysis (capital and operating cost estimation).

