

Jonathan Mares

contact

🏠 14 Walden Rd.
Tarrytown, NY 10591
☎ 914-450-1257
✉ jm2242@cornell.edu
🌐 jonathanmares.com
📄 github.com/jm2242
🌐 /in/jonathanmares

languages

English: native
Russian: fluent
Hebrew: fluent
Spanish: minimal

computing

Python | Javascript | Html
Java | Ocaml | Matlab

frameworks

Meteor | AngularJS
Materialize | Flask

tools

Git | Latex | Grunt | Jekyll
Tableau | Mathematica

coursework

Computer Science

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

Biomedical Engineering

Biomaterials & Medicine
Cellular Principles of BME
Molecular Princip. of BME

Chemical Engineering

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

organizations

Cornell Data Science Club
Kappa Sigma Fraternity

coursera

📖 Intro to Data Science
📖 Bioinformatics I
📖 Intro to Big Data
📖 Machine Learning

activities

motorcycles | bicycles
jazz | classical | piano
Civilization 5 | watersports

updated 04/06/16

education

Dec 2016 **Cornell University**, BSc Chemical Engineering and Computer Science
GPA: 3.01 Ithaca, NY

industry experience

Summer '16 **Wayfair** – *Software Engineering Intern* Boston, Massachusetts
Spring 2016 **Pfizer** – *Software Engineering Associate* New York, New York

- Designed, built and launched a web application built in Meteor
- Upgraded outdated internal website to implement AngularJS and conform to HTML5 / mobile first standards
- Worked with vendors to improve front end and implement Material Design standards on internal platform with over 2000 users

Summer '14 **Novartis Vaccines** – *Process Engineering Intern* Holly Springs, North Carolina
Project: Multipurpose vaccine platform development

- Developed experiments to define a pilot scale oil-in-water emulsion process
- Characterized emulsion using HPLC and particle sizing techniques

Summer '13 **IPS- Integrated Project Services** – *Project Engineering Intern* Somerset, NJ
2011–2012 **Hi-Tech Pharmacal** – *Validation and Technical Services Intern* Amityville, NY

freelance

O '15 - Now **MaggioMares Software** – *Full Stack Developer* maggiomares.com
Co-started company specializing in fast, responsive, and lightweight websites for small businesses. Clients include restaurants, real estate agents, and other professionals.
A '15 - Now **Mares Tutoring** – *Private Tutor*
High School and AP level Math, Chemistry, Physics, and Computer Science subjects.

projects

October '15 **LiveGroceryList** livegrocerylist.tk
Built a Responsive web application to share grocery lists with family members. Deployed on Heroku, built with *Flask*, and utilizes *PostgreSQL*.
Spring 2015 **ReadMe-dot-Text** HackCooper @ Cooper Union, NY
Designed an app with a team to convert images into speech for the visually impaired. Built in *Python* with *Flask*, *IBM Bluemix*, *Watson* text-to-speech API, *Leap Motion* for gesture recognition, and *ABBYY FineReader* for optical character recognition.
Spring 2015 **Capstone Chemical Process Design**
Prepared a full scale feasibility study of a Penicillin production process. Technical work included reactor and distillation column design, *Aspen Plus* simulations, utilities design, and a robust process flow diagram. Economic analysis included capital and operating costs estimates for process and off plot support facilities.

research

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

2009–2011 **Renal Research Institute** – *Research Assistant* NY Medical College, Valhalla, NY

- Performed mesenchymal stem cell culture and capillary image analysis

selected publications

- Ricapito, N., **Mares, J.**, Petralia, D., & Putnam, D. Neighboring Group Participation in DHA-Based Biomaterial Degradation. Publication in preparation.
- ...**Mares, J.**...Goligorsky, M. S. (2012). Functional consequences of inhibiting exocytosis of Weibel-Palade bodies in acute renal ischemia. *AJP: Renal Physiology*,...