# ALEXANDER LENAIL

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MISSION | I want to make a difference in the world and I'm building the skill set I feel is most apt to do it.

# **EDUCATION** | **TUFTS UNIVERSITY**, B.S. COMPUTER SCIENCE

FALL 2012 - SPRING 2016

Machine Learning, Computational Biology, Programming Languages, Theory of Computation, Computer Systems, Data Structures, Linear Algebra, Web Engineering, Advanced Machine Learning, Algorithms, Concurrency, Distributed Systems, Advanced Algorithms.

# MASSACHUSSETTS INSTITUTE OF TECHNOLOGY, VISITING STUDENT

SPRING / FALL 2015

Computational Systems Biology, Organic Chemistry, Differential Equations. Advanced Natural Language Processing, Advanced Machine Vision, Future Artificial Intelligence

# PALO ALTO SENIOR HIGH SCHOOL, CLASS OF 2012

# PASSIONS & SKILLS

Programming: Proficiency in Python, C++, and web engineering (HTML/CSS, JS/CoffeeScript, Node/Flask, Backbone/jQuery/React). Some Scala, Erlang, Ruby, Java, Lisp, Scheme, ML.

International: Native French speaker and fluent in Spanish. Traveled extensively through Europe and Latin America. Love culture and immersing myself in the ones I don't understand.

DIY & Art: I build computers and take them apart. DIY electronics. Advanced and experimental photography. Video, sound, and music editing. Glassblowing, Pottery, Carpentry, Sculpture.

Biology: I believe machine learning has a tremendous deal of untapped potential in biology and medicine, and I hope I have the opportunity to prove it.

## **EXPERIENCES**

# RESEARCH ASSISTANT MIT BIOLOGICAL ENGINEERING - ERNEST FRAENKEL LAB

FEBRUARY 2016 - PRESENT

Establishing computational infrastructure for AnswerALS & NeuroLINCS consortia on the cloud. Azure, Docker, Galaxy Project, Ansible, SLURM. Research projects on the integration of 'omics data, fast algorithms for systems biology, and deep learning approaches to disease modeling.

## **SOFTWARE ENGINEERING INTERN BENCHLING**

WINTER BREAK 2015-2016

Building out synthetic biologist's lab notebook in React.js, Flask with SQLAlchemy.

# **SOFTWARE ENGINEERING INTERN GOOGLE SEARCH**

SUMMER 2015

Developed an extensible classifier framework to recognize nefarious URL patterns in the crawl. C++ template programming, MapReduce, AdaBoost. Machine Learning at web scale.

# BIOINFORMATICS TA/RA TUFTS UNIVERSITY - DONNA SLONIM LAB

**FALL 2014** 

Teaching assistant for Bioinformatics and research assistant on the CSAX algorithm project.

### **PRESIDENT** TUETS COMPUTER SCIENCE EXCHANGE

SEPTEMBER 2013 – DECEMBER 2015

As the leader of the main computer science club on campus, I helped organize hackathons and tech-talks for some 500 students to come together and share ideas and pizza.

# KPCB ENGINEERING FELLOW COURSERA

SUMMER 2014

Building out the Future Learning Experiences platform in Scala and Javascript with Backbone.

# SOFTWARE ENGINEERING INTERN AUTODESK INC

SUMMER 2013

Building out CAD tool 'FormIt Web'. CoffeeScript with Scene.JS, which wraps WebGL.

RESEARCH ASSISTANT STANFORD GRADUATE SCHOOL OF BUSINESS - SARAH SOULE LAB

SUMMER 2012