**Mohamed El Zeiny | 408-458-0246 | San Francisco, California**

6 November 2018

**Synthego**

3565 Haven Ave #1
Menlo Park, CA 94025

To Whom it May Concern,

I am abandoning my usual cover letter format to express peak interest for this position. In addition to being an experienced computer scientist, I consider myself to be a Bioinformatics guru, having close to 2 years of experience as a Bioinformatics scientist at Roche Molecular Systems and Thermo Fisher Scientific. I have no doubt that my sharp and unique skill set in both Computer Science and Bioinformatics would make an excellent addition to your team.

- Worked as a lead Bioinformatics Scientist on the development of the Iron-Torrent Benchtop Sequencer at Thermo Fisher Scientific.
- Extensive background in Computer Science, with an emphasis in data-specialized languages such as Python, mySQL, Pandas, and PostgreSQL
- Solid biology background from Berkeley and Auburn University, including published experience in Metagenomics and Prokaryotic Molecular Genetics at a young age
- Talented and capable of executing complex protocols in the Wetlab. Including DNA Extraction, Library Preparation, and Template Preparation.

In addition to my years of professional experience in Genetics, I am an extremely capable software engineer. I have built out multiple full-stack applications of complex website such as Instagram and Warby Parker that features authentication, automatic guest login, comments, photos, likes, and notifications. Although these projects may seem off-topic at first glance, these projects serve to showcase my robust background in computer science as they span nearly a dozen languages and libraries such as React, Ruby on Rails, Redux, Flask, NodeJS, Express Js, MongoDB, JavaScript, CSS, HTML and much more.

If you have any questions about my qualifications, please don't hesitate to reach me through my email mohamed.elzeiny@berkeley.edu. Thank you for your time and consideration. I hope we have the opportunity to speak soon!

Regards,

Mohamed El Zeiny

# Mohamed Ali El Zeiny

Phone 408-458-0246 mohamed.elzeiny@berkeley.edu linkedin github

## skills

**Python, Pandas**, Ruby, Ruby on Rails, JavaScript, jQuery, React.js, Redux, **Git**, HTML5, CSS3, Amazon Web Services, Docker, **mySQL**, MongoDB, **PostgreSQL**, Selenium Web Driver, Capybara, Rspec, Tenserflow, OpenCV, **Pipetting, DNA Extraction, Library Prep, Template Preparation, ELISA, and PCR**.

## education

**Auburn University** (Spring 2014)
*Magna Cum Laude with 4.0 GPA in Computer Science (Minor), and 3.85 GPA in Molecular Biology*
*Presidential Scholar. Dean's List*

**App Academy** (Fall 2018)
Elite software development course in San Francisco with focus on full stack web development

## experience

**Hacker-in-Residence (TA)** OCT 2018 - PRESENT (>1 mo)
*App Academy*

- Top graduates extended TA positions while searching for development roles
- Responsible for reviewing coding challenges and conducting 3-10 technical interviews a day
- Administer 1-2 lectures a day on a variety of coding topics such as algorithms, web development, and data structures

**Bioinformatics Scientist II** OCT 2015 - AUG 2016 (1 yr)
*Thermo Fisher Scientific*

- Worked as a lead scientist on the Thermo's development team for Iron-Torrent benchtop sequencer
- Utilized Python, mySQL, and Pandas to analyze sequencing runs for assessment of extraction quality and efficiency
- Worked extensively with QA and development team to troubleshoot sequencing failures and chokepoints

**Bioinformatics Scientist I** FEB 2015 - SEP 2015 (10 mo)
*Roche Molecular System*

- Evaluated efficiency and purity of nucleotide extraction using PostgreSQL and Python
- Extensive experience in the Wetlab as a Clinical Trial operator with stellar SOP and compliance
- Used Javascript, Pandas, and PostgreSQL to Streamline Biospecimen management for the Clinical Op Team

**Research Associate** SEP 2011 - MAR 2014 (2yr 7mo)
*Auburn University, College of Science and Mathematics*

- Prepared metagenomic libraries for high throughput sequencing and established stellar aseptic techniques
- Wet lab responsibilities included replica plating, making substrate, staining, autoclaving, and pouring plates

## publications

"Novel archael thermostable cellulases from an oil reservoir metagenome " NCBI Article Link
*AMB Express: 2017; 7;183. Lewin, Zhou, Pham, Haugen, El Zeiny, Aarstad, Liebl, Wentzel, Liles*

## cs projects

GlassifyMe see code on github
*Python, Computer Vision, OpenCV, Vanilla Javascript*

- Implemented facial detection using Python OpenCV to project Glasses onto a user's face in real-time
- Developed Artificial Intelligence used to estimate satisfaction and log facial expressions for each retail item
- Vanilla Javascript implemented to feature user options between 3 spectacles and 3 sunglasses

InstaCraam live site | github
*React, Redux, React Native, Ruby on Rails, BCrypt, Webpack, Javascript, PostgreSQL, Amazon Web Services(S3), Python*

- Solo full-featured clone of Instagram integrating feed, friend requests, authentication and notifications
- Frontend built entirely in React for a smooth and responsive front-end experience,
- Engineered scalable frontend so that UI is 100% mobile friendly
- Used Rails and PostgreSQL to model complex associations so that users can upload, "favorite" and comment on photos
- Engineered Intuitive redux state modeling with simple API calls to Rails/PostgreSQL backend
- Utilized Python to rake "How I Met Your Mother" and "Seinfeld" IMDB pages for character names and popular quotes for colorful and interactive seed data to complete NY Sitcom themed clone of Instagram