

# William R. Howard Matchen

bmatchen@gmail.com | 914-400-9860 | [wrhm.github.io](http://wrhm.github.io) | U.S. Citizen

## Education

- Carnegie Mellon University Class of 2017
  - Bachelor of Science in Physics - Computational Track
  - Minor in Computer Science

## Work Experience

- Core Speech Support Engineer at M\*Modal **Sept. 2017 - Present**
  - Triage customer issues in support of multiple applications
  - Develop, maintain, and run *Python* scripts for proactive and diagnostic analyses
  - Write and execute *SQL* database queries
  - Document and communicate settings changes; quantify usability improvements
  - Generate statistics on dictation data using *regular expressions* and *Unix commands*
- Software Engineering Intern at CMU Institute for Software Research **Summer 2016**
  - Worked on Usable Privacy Policy Project
  - Built *regular expressions* in *Python* to segment policy texts for annotation
  - Maintained corpus of thousands of policy files
- Software Consultant for Disney Research **Summer 2015**
  - Developed *Python* scripts to parse email corpus for emoticon usage
  - Analyzed social interactions in corporate hierarchy
  - Used the *numpy* package to calculate statistics

## Coursework

- Carnegie Mellon University
  - *Natural Language Processing*
  - *Probability Theory and Random Processes*
  - *Parallel and Sequential Data Structures and Algorithms*
  - *Numerical Methods*
  - *Matrices and Linear Transformations*
  - *Graph Theory*
- Online Courses
  - *Intro to Artificial Intelligence* by P. Norvig and S. Thrun (udacity.com) **Summer 2017**
    - Learned mathematical principles in many AI areas, including *Bayesian modeling*, *image processing*, *robotics / motion planning*, and *natural language processing*
  - *Machine Learning* by Andrew Ng (coursera.com) **Summer 2015**
    - Implemented Neural Networks, SVM's, PCA, Anomaly Detection and Recommender Systems in *Octave* and *MATLAB*

## Skills

- Programming languages: Proficient in *Python*; Some experience in *C/Javascript/HTML/CSS*
- Familiar with *Git/Mercurial*, *Unix* environment, *SQL*
- Conversational in Spanish

## Projects

- Wikipedia Q&A
  - Created an automated question-generating/question-answering system for Wikipedia articles as a group project in the *Natural Language Processing* course
  - Written in *Python*, using the *nltk* and *Stanford CoreNLP* packages

## Honors

- Chabad Lamplighter Award for Dedication to Community Service **June 2017**
- Thomas J. Watson Memorial Scholarship for achievement in math and science **2013 - 2017**