

# Mark Anthony Martinez II

mam17@cs.princeton.edu/mmartinez@post.harvard.edu  
856.701.4511

---

## EDUCATION

**Princeton University**, Princeton, NJ  
Master of Science in Engineering in Computer Science

Expected: May 2018

**Harvard University**, Cambridge, MA  
Bachelor of Arts in Applied Math and Evolutionary Biology

---

May 2014

## WORK EXPERIENCE

**Janssen Pharmaceutical Companies of Johnson & Johnson**, Spring House, PA  
*Data Analyst, Research and Development IT*

August 2014 - July 2016

- Led an international project based in Beerse, Belgium to create a data driven dashboard which revealed the next big cancer treatments by automating a tedious, manual quarterly review of the pharmaceutical marketplace.
- Influenced Janssen's strategic decisions for investing in disease areas by evaluating electronic medical records to calculate patient compliance when taking cancer medication.
- Utilized a natural language processing classifier to identify novel drug technologies in patents.

**Samsung Electronics**, Suwon, South Korea  
*Summer Intern, Advanced Research and Development*

June 2013 - August 2013

- Created a novel algorithm that identified words not present within Samsung's voice recognition word dictionary from user audio files.
- 

## PROJECTS

### Deep Driving: Improving Self-Driving Cars With Data Generated From Grand Theft Auto (ongoing)

- Produced data from Grand Theft Auto V to train a deep neural net classifier that uses continuous video input to determine the optimal driving pattern in different scenarios.

### Deep Learning: Classifying Actions in Video

- Utilized Deep Learning to classify specific actions, such as throwing a ball, in videos. Modified the final fully connected layers of the pre-trained VGG classifier with new examples from video frames to fine tune the neural network.

### Digital Deep Art: Teaching Computers to See Art

- Built a Deep Learning framework using hundred of thousands of pieces of art to train a machine learning classifier to categorize different categories of art by style.

### Modeling Malaria in Kenya

- Predicted possible geographic transmission of malaria in Kenya using historical malaria transmission, weather, and mobile phone data applying the PageRank algorithm. <http://kenyamalaria.github.io/>

### Modeling Cytoplasmic Streaming in Algae

- Modeled the optimal cytoplasmic flow of algae using differential equations and helped identify the actual flow patterns by observing the flow of particles in the algae's cytoplasm by capturing and analyzing video data of the algae.
- 

## SKILLS

- Programming Languages: Python, Matlab, Java, SQL, Experience with MapReduce
- Deep Learning, specifically applied in computer vision problems

## LANGUAGES

- Fluent in Korean, German, and Spanish
- 

## LEADERSHIP

- President of the Harvard Science Review; Harvard's oldest undergraduate science publication.
  - Spent 10-15 hours weekly designing publication, acquiring funding, writing, editing, interacting with advising faculty, and organizing socials and meetings
- Mentor for underclassmen in Harvard dormitory. Advised on courses, extracurriculars, and internships.