

## Mark Anthony Martinez II

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### EDUCATION

- Princeton University**, Princeton, NJ Expected: June 2018  
Master of Science in Engineering in Computer Science
- Harvard University**, Cambridge, MA May 2014  
Bachelor of Arts in Applied Math and Evolutionary Biology
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### WORK EXPERIENCE

- Janssen Pharmaceutical Companies of Johnson & Johnson**, Spring House, PA August 2014 - July 2016  
*Data Analyst, Research and Development IT*
- 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 June 2013 - August 2013  
*Summer Intern, Advanced Research and Development*
- Created a novel algorithm that identified words not present within Samsung's voice recognition word dictionary from user audio files.
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### 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. <https://princetonautonomous.github.io/>
- 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 and traditional texture classification frameworks 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/>
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### SKILLS

- Programming Languages: Python, Matlab, Java, C++, SQL, Experience with MapReduce
- Deep Learning, specifically applied in computer vision problems
- Computer vision: algorithms used in projects include Feature Detection, HoG, Lukas-Canade
- Machine Learning: extensive use of traditional ML algorithms such as SVM, Clustering, Decision Trees, Boosting, etc...

### LANGUAGES

- Fluent in Korean, German, and Spanish
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### 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.