

# Daniel NGUYEN

## PERSONAL DATA

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## EDUCATION

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EXPECTED MAY 2017      Bachelor of Arts in COMPUTER SCIENCE, LINGUISTICS, JAPANESE  
The University of California, Berkeley  
Minor: Korean  
GPA: 3.5

## WORK EXPERIENCE

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JANUARY 2015-PRESENT	CS61B Data Structures Head Undergraduate Student Instructor Part of the staff for CS61B. Developed homework and projects for students. Led a discussion section and a lab section. Taught students core concepts behind data structures and programming methodology. As head TA, dealt with logistics of the class between instructor and the TAs
JUNE 2015-PRESENT	Researcher with Stat News Group Did research on optimization and machine learning applied to news media, including twitter, academic corpora, etc. Currently working on applying deep learning as a preprocessing method for authorship queries.
DECEMBER 2014-JANUARY 2015	Contractor for RoomForward Worked at the RoomForward start-up. Developed back end using Rails and front end using Foundation

## LANGUAGES

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ENGLISH, JAPANESE, KOREAN, VIETNAMESE

## COMPUTER SKILLS

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Advanced Knowledge: JAVA, PYTHON, L<sup>A</sup>T<sub>E</sub>X, MATLAB, OCTAVE, JULIA, Word, PowerPoint, Excel  
Intermediate Knowledge: RUBY, SCHEME, C, HTML, CSS, JAVASCRIPT  
Basic Knowledge: OBJECTIVE C

## PERSONAL PROJECTS

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NEURAL NET	Created a multi-layer neural net implementation in Julia. Involved additional optimizations including ReLUs and dropout.
IN MEMORY DATABASE	Created a program that accepts a limited range of commands, similar to the Redis Database. Accepts input from stdin or a file. Implemented in Java
TEXT CORPORA SUMMARIZER	Created a web interface and backend to analyze a corpora of medical paper abstracts and cluster them based on topics as part of Statnews. Used PCA in order to do the clustering
TWITTER VOICE APP	Created at the Big Hack Hackathon. Made an app that read out the current tweets related to a search input. Implemented in Java
PACMAN AI	Created an AI for Pacman, including problems for maze solving and getting a high score through heuristics and various search algorithms. Implemented in Python
SOBEL EDGE DETECTOR	Created a Sobel edge detector, implemented with run-length encoding that took in tiff images and created blurred versions and black and white versions of the image. Implemented in Java

## INTERESTS AND ACTIVITIES

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Teaching, Machine Learning, Optimization, Natural Language Processing, Learning Languages