

CAMERON AVERILL

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EDUCATION

Columbia University, Columbia College, 4.04/4.00 GPA (4.33/4.00 Major GPA) **New York, NY**
BA in Computer Science, Concentration in Mathematics **2015-2018**

- Relevant Coursework: Data Structures in Java, Discrete Math, Advanced Programming (Current), Modern Algebra I (Current), Fundamentals of Computer Systems (Current), Chinese II, Linear Algebra

Northwestern University, 4.00 GPA (Transferred) **Evanston, IL**
BA in Computer Science **2014-2015**

- Freshman Seminar Writing Award: essay chosen as best out of 1,000 papers written by Northwestern freshmen

EXPERIENCE

Northwestern Computational Linguistics Laboratory **Evanston, IL**
Research Assistant **March-June 2015**

- Wrote Python computer vision program to compute visual similarity of inputted words with SciPy, NumPy, and PIL libraries
- Implemented Gabor Jet image transformation to better replicate how the human eye views images
- Developed algorithm to minimize white space in images to better reflect textual similarity

Ulmer Astronomical Physics Research Group **Evanston, IL**
Research Assistant **Jan-March 2015**

- Wrote MATLAB program to find brightest cluster galaxies (BCG's) by red shift, brightness, and proximity to satellites in a database of over 50,000 galactic objects
- Wrote SQL queries to cross-reference BCG database with Caltech's Galaxy Evolution Explorer database of satellites

SELECTED PROJECTS

PriceLimbo **2016**

- Developed desktop program in Java to alert users via email when products drop below a certain price on ecommerce websites
- Scraped Free People and Urban Outfitters sites using JSoup and scheduled the job to run every four hours
- Stored product information in MySQL database using Hibernate

Synesthesia **Feb 2016-Present**

- Generating music playlists that match given photo albums using Echonest, Clarifai, and SimpleCV
- Retrieved image content with Clarifai API, performed blob detection with SimpleCV, analyzed color with PIL
- Extracting rules to relate image content to song lyrics and to relate RGB/HSV values to frequency/tempo values

CULPA **2015-Present**

- Overhauling Columbia's unofficial course review site with Python/Flask
- Built Flask RESTful API to access Columbia University course data for cross-comparison with course reviews and later used this API to find small class sizes during my registration period (which you currently cannot do)

Snacktivist **2015**

- Developed Ruby on Rails social networking web app that lets vegans/vegetarians connect with each other, search for and save recipes, and plan parties with food that accommodates everyone's dietary restrictions

INVOLVEMENT

Application Development Initiative Labs, Member **2015-Present**

- Work on team of four to build web apps throughout the semester (ex: CULPA)
- Coordinate mock interviews, contact local tech companies for tech talks and sponsorship

Design for America, Member **2015-Present**

- Study and employ design thinking methodologies pioneered by organizations including Google Ventures and IDEO
- Work on a team of five to address problems related to being a student-parent at Columbia University

The Columbia Federalist, Member **2015-Present**

- Write for Columbia's student-run humor publication

SKILLS

- **Computer:** Java, Python, Flask, Git, UNIX, HTML, CSS, Bootstrap, MATLAB(Prior), C++ (Prior), Ruby on Rails (Prior)
- **Language:** Spanish (Advanced), Chinese (Intermediate)