# Puran Zhang

pz75@cornell.edu Mobile: (804) 615-9388 puranzhang.me github.com/puranzhang

### **EDUCATION**

**Cornell University**, *Ithaca*, *NY* Master (MPS)., Information Science

MAY 2017 GPA: 3.65/4.00

## University of Richmond, Richmond, VA

B.S., Mathematics & B.S., Psychology, Minor in Computer Science

Aug 2012 - May 2016

Cum Laude, Mathematics GPA: 3.92

Relevant coursework: Machine Learning • Data-driven Web Applications • Computer Graphics • Natural Language Processing • Database System • Algorithms • Operations Research • Numerical Analysis • Abstract Algebra

## RELEVANT EXPERIENCE

Temporal word embeddings - quantifying changes of words' meanings in politics

JUNE 2017- PRESENT

- Built a *Dynamic Bernoulli Embeddings* model, a distributed representations of words that drift over time, of political comments on Facebook with *TensorFlow*.
- Applied aggregations on comments data in our MongoDB database.

## Data Visualization, Cornell University

JAN - MAY 2017

- "Rabbling" Babies' vocabulary development
  - Originator of the project, and implemented linear regression from wordbank and the visuals.
- The Century of Movies Dynamics of movies in 1916 2016
  - Massaged the IMDb data, and implemented the HTML framework and JavaScript functions with D3.js.

## MPS Project - "Keep talking or explodes", Cornell University

AUG - DEC 2016

- Led the team and implemented a real-time web-based messaging app with Node.js and Socket.io, which allows researchers to modify features such as "is typing" indicators.
- Designed the user interface of the messaging app with HTML5/CSS3.
- Modified the C# core code of the game *ktane*, which allows researchers to generate customized bomb for studies.

## Natural Language Processing, Cornell University

AUG - DEC 2016

- Question Answering System
  - Integrated logistic regression model that trained and extracted candidate answers with Python.
- Word Embedding in Topic Classification
  - Trained word clusters with *gensim*, by applying mini-batch k-means algorithm on a google news word2vec model.

### Online RPG game, a database integration project

APR - AUG 2016

- Co-designed the game (balancing and pacing) and structure of implementations.
- Implemented login/register page (check mal-input and interact with back-end database with PHP).
- Built partial battle page/functions with PHP and AJAX (mainly Item system of characters).

#### SKILLS

Java, Python, JavaScript, D3.js, SQL, LTFX, MATLAB, git, Sketch

\*Highlighted texts point to associated pages and files.