

# Nancy Wong

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## Professional Experience

### Co-Director

Hack4Impact · Jan 2017 – Present · Philadelphia, PA

- Manage and operate a 501c3 nonprofit that builds open-source software in partnership with other nonprofit and social good organizations

### Tech Lead, Software Developer *Hack4Impact*

Berkman Klein Center, Harvard University · Sept 2016 – Jan 2017

Clean Air Council · Sept 2015 – Jan 2016

Greater Philadelphia Coalition Against Hunger · Sept – Dec 2014

- Develop open-source web and mobile applications for non-profit organizations, leveraging various front and backend frameworks

### Software Engineering Intern

Textio · June – Aug 2016 · Seattle, WA

- Architected and developed bulk data preprocessing pipeline for natural language processing and machine learning
- Trained machine learning models using Word2Vec neural word embeddings and the Python Natural Language Toolkit
- Built extensible bulk annotation pipeline components for tagging linguistic features (part-of-speech tags, stems, lemmas, chunks, etc.)
- Developed and designed custom Document API for use in data science and machine learning experiments

### Software Engineering Intern, hackNY Fellow

Skillshare · May – August 2015 · New York, NY

- Developed front and back-end features in an agile programming environment using Backbone.js and PHP/Yii web frameworks
- Implemented user-facing site features following the MVC design pattern, including custom user profile vanity URLs, comment formatting, incomplete profile alerts, and video player updates

### Teaching Assistant *CIS120*

University of Pennsylvania · Jan 2014 – Jan 2015

- Taught functional and object-oriented programming techniques in OCaml and Java; led weekly labs; graded assignments and exams

### Developer Intern

Tynker · June – August 2014 · Mountain View, CA

- Built and designed educational games based on visual programming

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**Poetry Theremin** 2015 · Python · Raspberry Pi

[github.com/nancywong/rpi-poetry-generator](https://github.com/nancywong/rpi-poetry-generator)

- Interactive hardware poetry generator
- Uses light and ultrasonic sensors to determine tone and pacing of the poem in real time depending on current physical conditions
- Uses the TextBlob natural language processing library to create n-grams for sentiment analysis, text corpus parsing, and poem generation

**Cardboard Artboard** 2015 · PennApps

Google Cardboard · Android · Unity · C#

- Hands-free virtual reality paint application

## Education

University of Pennsylvania  
School of Engineering and  
Applied Science

Bachelor of Applied Science in  
Computer Science

Minor: Cognitive Science

Expected Dec 2017

### Activities

*\*current*

Hack4Impact\* (2014 – 17)

Co-Director, Tech Lead, Developer

ACM SIGGRAPH (2013 – 16)

President, Executive Board

Penn Play Game Jam (2013 – 15)

Co-Founder, Director

She++ (2013 – 14)

Computer Science Mentor

### Awards

Hack the Change, Third Place  
Winner

National Center for Women &  
Information Technology Award for  
Aspirations in Computing

Entertainment Software  
Association Scholarship Winner

Honorable Mention Best Video  
Game Design, Technology  
Student Association

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## Projects

**Mini-Maya** 2015 · coursework · C++

- 3d modeling application featuring OBJ importing, transformation controls, mesh editing tools, anti-aliasing, and a ray tracer that can render reflective and refractive materials

**Internet Party** 2015 · Javascript · Python

[internet-party.herokuapp.com](https://internet-party.herokuapp.com)

- Interactive, collaborative 3d picture gallery via MMS
- Uses the three.js WebGL library with a Python Flask/Amazon S3 back-end and integrates the Twilio API for receiving multimedia text messages