

# Jay Tappen

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Current Address: Ithaca, NY  
Home Address: Carlisle, MA

## Education

### Cornell University, College of Engineering

BS in Computer Science in 3.5 years

- 3.97 / 4.0 GPA, Dean's list every semester
- Engineering Co-op Award of Distinguished Honor

Masters of Engineering in Computer Science

### Concord Carlisle High School

- 4.4 / 4.0 GPA, Valedictorian

Ithaca, New York  
*Aug 2014 – Dec 2017*

*Jan 2018 – Dec 2018*  
Concord, Massachusetts  
*Sept 2010 – May 2014*

## Previous Employment

### Decipher Technology Studios

Engineering Co-Op – Data Science and Machine Learning

- Designed and implemented a machine learning pipeline to extract text from real-scene images. Created a convolution neural network for text localization with custom output analysis code for straightening text. (Python with TensorFlow)
- Scripted the generation of millions of training images for the custom model. (Python)
- Localized and straightened text on street signs, buildings, license plates, business cards, and whiteboards with a single model. Demonstrated accuracy in multiple scripts, including English, Arabic, and Chinese.
- Wrapped pipeline in a microservice and integrated it with an existing product suite. (Go)

Alexandria, Virginia  
*January – August 2017*

### NWN Corporation

Associate Solutions Engineer

- Programmed an asynchronous SOAP client in Python and integrated it with existing network monitoring software. (Python, SOAP, YAML, JSON, Linux (CentOS))
- Wrote scripts to improve the efficiency and efficacy of on-call engineers.

Waltham, Massachusetts  
*Summers of 2013, 2014, and 2015*

## Programming Experience at Cornell University

### Course Projects

Learned through my own work and in collaboration with other students.

- Built a SQL interpreter and query optimizer in a team. Implemented algorithms for handling datasets too large to be held in memory. (Java)
- Wrote an asynchronous two-thirds consensus protocol designed for distributed system reliability. (OCaml)
- Implemented a multithreaded SMTP mail server. (Python)
- Reviewed methods for cleaning large datasets, feature engineering, and modeling data with linear time algorithms. (Julia)

*Fall 2014 – Present*

### Independent Study

Created and published a database-driven website to function as an online homework agenda for high school students. (PHP, JavaScript, MySQL (MariaDB), HTML, CSS)

*Spring 2016*

## Skills

**Languages:** Python, Java, Go, OCaml, +10 others and the willingness and desire to learn more

**Operating Systems:** Windows, Mac, Linux (CentOS, Fedora, Ubuntu)