Jay Tappen

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Current Address: Ithaca, NY
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Education

Cornell University, College of Engineering   Ithaca, New York
BS in Computer Science, Minor in Operations Research   *Aug 2014 – Dec 2017*
- o 3.97 / 4.0 GPA, Dean's list every semester
- o Engineering Co-op Award of Distinguished Honor
Masters of Engineering in Computer Science   *Jan 2018 – Dec 2018*

Previous Employment

Decipher Technology Studios   Alexandria, Virginia
Engineering Co-Op – Data Science and Machine Learning   *Jan – Aug 2017*
- o Designed and implemented a machine learning pipeline to extract text from real-scene images. Created a convolutional neural network for text localization with custom output analysis code for straightening text. (Python with TensorFlow)
- o Scripted the generation of millions of training images for the custom model. (Python)
- o Localized and straightened text on street signs, buildings, license plates, business cards, and whiteboards with a single model. Demonstrated accuracy on multiple scripts, including English, Arabic, and Chinese.
- o Wrapped pipeline in a microservice and integrated it with an existing product suite. (Go)

NWN Corporation   Waltham, Massachusetts
Associate Solutions Engineer   *Summers of 2013, 2014, and 2015*
- o Programmed an asynchronous SOAP client in Python and integrated it with existing network monitoring software. (Python)
- o Wrote scripts to improve the efficiency and efficacy of on-call engineers. (Python)

Programming Experience at Cornell University

Course Projects   *Fall 2014 – Present*
Learned through my own work and in collaboration with other students.
- o Built a SQL interpreter and query optimizer in a team. Implemented algorithms for handling datasets too large to be held in memory. (Java)
- o Wrote an asynchronous two-thirds consensus protocol designed for distributed system reliability. (OCaml)
- o Implemented a multithreaded SMTP mail server. (Python)
- o Explored methods for learning from large, messy datasets with different model types, training methods, loss functions, and regularizers. (Julia)

Independent Study   *Spring 2016*
Created and published a database-driven website to function as an online homework agenda for high school students. (PHP, JavaScript, MySQL (MariaDB), HTML, CSS)

Skills

Languages: Java, Python, Go, JavaScript, Julia, MATLAB, PHP, OCaml, SQL
Operating Systems: Development experience on Windows, Mac, and Linux (CentOS and Ubuntu)

Personal website: fjt37.github.io