

# David Pollack

## Experience

### **Co-Founder and CTO @ Cygnus Association Management**

(Atlanta — Aug 2014 - Present)

Founded an real estate management company to manage residential and commercial properties in Atlanta, GA. Responsible for the organization's technological solutions, including but not limited to Google Apps infrastructure, company web presence, and payment services. Collaborate with other cofounders regarding all strategic aspects of the company. Work 100% remotely.

### **Volunteer Program Director @ Rütli Schule**

(Berlin — Jan 2014 - Jul 2016)

Lead an optional English program for students in the 11th, 12th, and 13th class at the Rütli Schule in Neukölln. We guide students through various web apps that they can use to improve their English, while encouraging students to overcome their fear of speaking with native English speakers.

### **Senior Consultant @ Navigant**

(Atlanta — Sep 2006 - Apr 2013)

Completed re-underwrites of over 750 residential home loans for several of the TBTF (Too Big To Fail) US banks in disputes related to the US housing crisis. Managed and reviewed team members' work product. Developed software to automate repetitive tasks that cut the per-loan prep time by an order of a magnitude. Promoted in 2007 and 2010.

### **Machine Learning Fellow @ Fellowship.ai**

(Berlin — Jan 2019 - Present)

Once again, I developed an end-to-end solution to do image classification on a fashion dataset. We achieved state of the art results in the task classifying a fashion style from the Fashion14 dataset. In preparation for a weekly reading group, I optimized an implementation of memory networks on the babi question answer dataset. Worked on implementing semi-supervised semantic segmentation utilizing Deep Extreme Cut and DeepLab-v3+.

### **Lead Developer @ PyTorch Audio**

(Berlin — Jun 2017 - Present)

I am the lead developer for PyTorch's official audio loading library, torchaudio. I work directly with the PyTorch team at Facebook on this project. I have implemented input error checking testing, audio datasets, variable length input collate functions, audio IO functionality via SoX (Sound

eXchange), and added audio transformations (both implemented directly in PyTorch and using PyTorch's c++ hooks for SoX's effects chain). Additionally, I transferred the main PyTorch project's code flaking and documentation standards to this project. In October 2018, I was invited to the PyTorch developer conference for my contributions to the project.

## **Machine Learning Engineer @ YEAY GmbH**

(Berlin — Jan 2018 - Jun 2018)

My primary role was to use object recognition on videos to identify different classes of clothing. I utilized a Mask R-CNN-based network with custom additions for blur detection to select the clearest frames. Data prep included finding an appropriate dataset, writing scripts to translate between various annotation formats (PASCAL, COCO, YOLO) and add missing fields such as segmentation naively or algorithmically (i.e. GrabCut). Additionally, I dockerized my solution to make it more portable.

## **Creator @ Joomla! Google Maps Plugin**

(Atlanta — Jun 2005 - Sep 2006)

Developed and supported the first Google Maps API plugin for the popular CMS, Joomla! 1.0, in the PHP programming language. Implemented a reverse geocoder prior to the inclusion of this feature in the official Google Maps API. Provided customer support to thousands of users from all over the world. Monetized the project with Google AdWords.

## **Education**

- Master's Program in Economics and Management Science from Humboldt Universität in 2018
- Bachelors of Arts in Economics from Emory University in 2005

## **Activities**

- Duolingo
- OpenEdx Contributor
- Coursera
- MoBro @ Movember
- Tinavg - An Alphabet Learning Webapp
- Bouldering

## **Skills**

- Proficiency in Linux and Python (numpy, tensorflow, keras, pytorch, etc). Exposure to Scala, R, Javascript, CSS/HTML, and (No)SQL
- Proficiency in Deep Learning (pytorch, tensorflow, keras, scipy, etc). Exposure to Scala (Hadoop/Spark) and R.

## Github

- Username: dhpollack
- pytorch/pytorch
  - 3505 - improvements to ModuleList and ParameterList classes
  - 2657 - Add PadNd functions
- pytorch/audio
  - 59 - allow loading with offsets and num\_frames and saving specified bit precision
  - 58 - torch.cos not implemented for LongTensor fix
  - 23 - pytorch implementation of MEL spectrograms (no librosa req'd)
  - 16 - mu-law companding transform
  - 15 - add MEL spectrograms transform and fixed a few tests
  - 13 - update save/load to prevent bad inputs
  - 11 - basic transforms and two datasets
  - 10 - add gitignore
  - 4 - bytes function requires type
- rasa\_nlu
  - 443 - add sklearn-crfsuite install instructions
- edX
  - 1119 - Update README.md
  - 1166 - make backup of previous server-vars.yml
  - 1285 - added ansible task to add chris-lea ppas for current version nodejs
  - 1286 - COMMON\_ENABLE\_BASIC\_AUTH to False in ansible/comment/defaults/main.yml
- jquery.i18n
  - 71 - specified locale wasn't loading when dir was used in load()

## Languages

- English (native)
- German (professional working proficiency)
- French (basic)

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