

Jonathan Pedoeem

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Education

The Cooper Union, New York City, NY Electrical Engineering with Math minor • GPA: 3.70 • Expected Grad.: June 2020

Work Experience

- SWE Intern at Facebook AI Research (FAIR)** *New York City, NY* *May 2019 - August 2019*
- Developed multi task learning framework on top of [fairseq](#)
 - Built in support to use Bert Embeddings and added the ability to train concurrently on over 20 NLP tasks
 - Fine tuned models to meet state of the art on the [GLUE task](#)
- Data Strategy Technical Intern at Clarifai** *New York City, NY* *September 2018 - December 2018*
- Build tools and models needed by data strategy team for customers
 - Communicate and collaborate technical challenges with product and applied machine learning teams
- Co-Founder and Lead Developer for the Morning Munch LLC** (website deprecated) *June 2017- May 2019*
- Built a content aggregation app that combines many different feeds into one place
 - Built the website, email service, and backend api, used a MEAN Stack
- Lead Web Developer for Four Questions of Judaism** <http://fourquestionsofjudaism.com/> *January 2016- Present*
- Single handedly built website with python on google app engine for users to discuss essays on different philosophical topics
 - Weekly emails have 800 subscribers and growing
- Software Engineering Intern at Pagevamp** *New York City, NY* *Summers 2014, 2015*
- Built a web scraper and mySQL database for their Facebook page directory
 - Built white label license interface [Pagevamp Blog: The Comment that Changed it all](#)

Machine Learning Experience

- EEG Seizure Dataset** *September 2019 - Present*
- Collaborating with Temple University for senior capstone project to develop models to predict seizures and other artifacts
 - Looking to use methods from digital signal processing, classical machine learning, and deep learning to achieve these tasks
- FontBakers Research Group** *January 2019 - Present*
- Research group at the Cooper Union dedicated to algorithmically generating fonts in Bezier space
 - Development includes GAN and Transformer models
- Computational Graphs for Machine Learning (Deep Learning) Course** *September 2018 - December 2018*
- Intensive course focused on building neural networks and reading contemporary research papers
 - Projects include: MNIST classifier, CIFAR10 classifier, CIFAR100 classifier, AG news topic classifier, reproduction of [Measuring the Intrinsic Dimension of Objective Landscapes](#). Projects are on [Github](#)
 - [Multimodal Embeddings for Polysemous Word Representations](#), final project
- Data Mining Research Experience (REU) at UNCW** *May 2018 - July 2018*
- Developed Convolutional Neural Network Architecture YOLO-LITE, an object detection algorithm that can run real-time on non-GPU computers and is 3.8x faster than state-of-the-art. Funded by NSF . Web demo: <https://reu2018dl.github.io/>
 - Trained and Built Projects using R many different classical machine learning models. Projects can be [seen here](#)
- Natural Language Processing Course** *January 2018 - May 2018*
- Class focused on traditional NLP techniques as covered in Speech and Language Processing by Jurafsky 2nd Edition
 - [Article Topic categorization project](#)
 - [Spell checker and corrector project](#)
- Research Data Analyst** *June 2017- December 2017*
- Analyzed 10 weeks of cellphone data collected at Port Authority Bus Terminal with Professor Shlayan at The Cooper Union
 - Worked on devising a model to predict arrival and exit rates in the terminal to model user movement

Publications

R. Huang, J. Pedoeem and C. Chen, "YOLO-LITE: A Real-Time Object Detection Algorithm Optimized for Non-GPU Computers," *2018 IEEE International Conference on Big Data*, Seattle, WA, USA, 2018, pp. 2503-2510. <https://ieeexplore.ieee.org/document/8621865>

Skills

Highly Proficient

Python, C, MATLAB, MEAN stack, PyTorch, git, bash

Proficient

Keras, Tensorflow, C++, MySQL, R