

# ADAM LIEBERMAN

## Machine Learning | Data Science

@ adam.justin.lieberman@gmail.com    678-689-5958    Atlanta, GA  
ad1m.github.io    github.com/ad1m

## EXPERIENCE

### Head of Machine Learning

#### Finastra

September 2018 – Current    Atlanta, GA

- Lead Machine Learning efforts for Finastra's Artificial Intelligence Innovation Laboratories in the United States, Budapest, London, Paris, and Israel focusing on Machine Learning and Deep Learning research and development pertaining to financial markets
- Work with our C level executives to strategize the use of artificial intelligence, build and maintain AI infrastructure, and develop partnerships with leading companies in the space

### Head of Innovation

#### NCR

August 2017 – September 2018    Atlanta, GA

- Head of Machine Learning at NCR's Innovation Lab focusing on deep learning, machine learning, data science, and computer vision research and development
- Projects: Amazon Go style store, Wells Fargo AI Branch Manager, Rivermark Augmented Reality Branch support, Real-time mood recognition, Joint Density Estimation, synthetic transaction generation for database population, self check out theft prevention
- Talks: Introduction to Machine Learning, Introduction to Deep Learning, Mathematics of Neural Style Transfer, Generative Adversarial Networks, Autoencoders, Variational Autoencoders

### Co-Founder

#### Cappio

August 2014 – May 2016    Atlanta, GA

- A financial web application that helps average investors make smart investments in equities.
- Acquired by Simply Wall St.

### Quantitative Developer

#### Lucena Research

January 2016 – June 2016    Atlanta, GA

- Developed Lucena's premier blackdog algorithmic trading strategy (+51.86% as of August. 6, 2018)
- Researched various statistical machine learning models, optimization of various objective functions, and varying re-balancing periods for construction of an optimal portfolio with constrained ETFs

### Quantitative & Equity Research Developer

#### Janus Capital Group

May 2015 – August 2015    Denver, CO

- Worked with Nobel Prize winner Myron Scholes and the asset allocation team
- Developed preprocessing techniques for various derivatives data
- Created a historical weather simulation for quarterly report sales explanation
- Developed a glassdoor scraper and sentiment analyzer for fundamental insight into companies
- Designed and built the user interface for the ResearchLive twitter scraper
- Held meetings with the CEO and CFO from Sealed Air Corp (SEE) and DXPE Enterprises (DXPE)

## EDUCATION

### M.S. in Computer Science

#### Georgia Institute of Technology

August 2016 – June 2017

Specialization: Machine Learning  
GPA: 4.00

### B.S. in Applied Mathematics

#### Georgia Institute of Technology

August 2012 – May 2016

GPA: 3.68

## STRENGTHS

### Skills

Deep Learning    Machine Learning  
Data Science    Equities    Public Speaking

### Programming

Python    Matlab    Javascript    C#    Java  
HTML    CSS    JQuery

### Libraries

Keras    Sklearn    OpenCV    NLTK  
Numpy    Pandas    Flask    pymongo  
Matplotlib    BeautifulSoup    Requests

## WRITTEN WORKS

- Deep Learning on Clinical Notes
- Theory and Application of Generative Adversarial Networks
- Activation Functions in Deep Learning
- Regularization in Deep Learning Models
- Bias-Variance Trade-off
- Introduction to Machine Learning
- Clustering short-text documents
- Dynamic Time Warping
- Building a quantitative trading strategy

## PROJECTS

- Deep Convolutional Generative Adversarial Networks for Synthetic Facial Generation
- Crafte: A Craft Beer Recommendation Web Application
- Quantum Finance: Machine learning and interactive visualization for portfolios
- PyQuant: A class for quantitative portfolio metrics