

Raphael Gontijo Lopes

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EDUCATION

Georgia Institute of Technology - Computer Science - GPA: 3.96 (3.93 CS) - Highest Honors	Aug 2014 - May 2018
<i>Stanford Coursera</i> - Machine Learning MOOC by Andrew Ng	Feb 2015 - May 2015
<i>Stanford CS231n</i> - Convolutional Networks for Visual Recognition by Fei-Fei Li	Dec 2016 - Jan 2017

SKILLS

- **Machine Learning**, Artificial Intelligence, Algorithms, Autonomous Vehicles, Web
- **Python**, Java, Dart, Swift, JavaScript, C
- **TensorFlow**, PyTorch, scikit-learn, NLTK, pybrain, jQuery, Angular, mongoDB

RESEARCH

Data-Free Knowledge Distillation of Deep Neural Networks	Paper accepted to NIPS 2017 LLD Workshop
Neural Network Knowledge Distillation w/ No Training Data	Poster presented at ML@GT Symposium 2017
Towards End-to-End Pose Estimation and Transfer	Oral presentation at GT Spring Symposium 2017

WORK EXPERIENCE

Google Brain - <i>AI Resident</i>	Jun 2018 - Present
- Led research projects in Machine Learning, Computer Vision and Generative Models.	
GT Eye-Team - <i>Undergraduate Research Assistant</i>	Aug 2017 - May 2018
- Conducted research on deep attention models for motion assessment of olympic videos	
Microsoft - <i>Software Engineer Intern</i> - Azure Service Fabric	May 2017 - Aug 2017
- Implemented distributed Machine Learning systems using Service Fabric	
- Designed and created developer tools to make this task easy.	
GT Ubicomp Group - <i>Undergraduate Research Assistant</i>	Aug 2016 - May 2017
- Developed Deep Learning models in TensorFlow for unsupervised pattern recognition of Sign Language.	
- Conducted self-led research on data-free neural network model compression using knowledge distillation	
Google - <i>Software Engineer Intern</i> - Google Adwords	May 2016 - Aug 2016
- Created tools for advertisers to visualize statistics about their ads in Adwords at a glance	
Google - <i>Engineering Practicum Intern</i> - Google Analytics	May 2015 - Aug 2015
- Automated the bookkeeping, and visualization of test coverage information of Google Analytics' jobs	

PROJECTS

Buzzmobile	github.com/gtagency/buzzmobile
- Autonomous vehicle used as a parade float, built with ROS and python.	
- Led team of 10+ in developing reactive control architecture, and an automated simulation framework.	
InTube (TreeHacks 2017)	github.com/irapha/search_within_videos
- A web app for searching within a youtube video, based on its visual and audio content.	
- Created pipeline for efficiently retrieving youtube thumbnails and tagging them using deep ML models.	
Monte Carlo Tetris Bot	github.com/gtagency/tetris-python
- Competitive tetris-playing bot for online competition, using Monte Carlo Tree Search to make decisions.	
- Implemented MCTS, with 'relaxed' evaluation functions, as fallback alternatives to vanilla MCTS.	
140 M.D. (MHacks Refactor)	github.com/iRapha/140_MD
- Probabilistic sleep schedule prediction, based on a user's tweet history	
- Calculated Poisson Distributions using timestamp data from twitter, and approximated sleep/wake times	

LEADERSHIP / ACTIVITIES

Founding Organizer - Queer in AI @ NeurIPS 2018	Jun 2018 - Present
The Agency (AI research club) - President / Internal Operations	Dec 2015 - Dec 2017
GT UROP - Undergraduate Research Ambassador / \$1.5k PURA grant winner	Aug 2017 - Dec 2017
Undergraduate Council - Vice President	May 2016 - May 2017
HackGT - Operations Organizer	Oct 2015 - May 2017
Georgia Tech Sailing Club	Feb 2015 - Dec 2017
Home Depot Deep Learning Competition - 2nd place / Organizer	Apr 2017, Nov 2017

