Raphael Gontijo Lopes

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github.com/iRapha   **raphagl.com**

EDUCATION

Georgia Institute of Technology, Atlanta, GA, USA   August 2014 - May 2018 (expected)
- GPA: 4.0. Candidate for Bachelor of Science in Computer Science

Stanford's Coursera - Machine Learning MOOC by Andrew Ng   Spring 2015
Bernoulli High School, Belo Horizonte, MG, Brazil   February 2012 - December 2013
- GPA: 91.5% - top 5% of class

SKILLS

Programming Languages: Java, JavaScript (+ Node.js), Python, C, Swift, HTML5, CSS, PHP, SQL, Octave
External Libraries: express, MongoDB, web.py, jQuery, ncurses, Pygame, nltk
Spoken Languages: English (fluent), Portuguese (fluent / native speaker)

WORK EXPERIENCE

Google - Engineering Practicum Intern - Google Analytics (Mountain View)   Summer 2015
- Automated the collection, bookkeeping, and visualization of test coverage information of Google Analytics' jobs.
- Used infrastructures such as Bigtable, Proto buffers, Borg(cron), Dremel, PyUnit, Google Message Routing Protocols.

PROJECTS

Pretty Graphs   Spring 2015
- Python library that uses simulated annealing and gradient descent to find the most visually appealing configuration of a graph.
- Implemented the Simulated Annealing and Gradient Descent algorithms, and designed the heuristics for the cost function.
- Designed and created a wrapper for the algorithm for developer ease of use.
- Source and Instructions - *github.com/gtagency/graph-reduction*

Mental   Spring 2015
- A python framework for creating Neural Networks quickly. Very easy to use: just input the training data.
- Implemented the logic of gradient descent and backpropagation (for training the NN).
- Wrapped the NN in a class that is easy to train and use for predictions.
- Source - *github.com/iRapha/mental*

Text Simplifier   January 2015
- A chrome extension that attempts to simplify text from the current web page for children to better understand it.
- Created the semantic trees from raw text, using python's nltk NLP library.
- Designed the logic of removing branches from the semantic tree to maximize text readability and understanding.
- Created the functionality of the chrome extension and connection to our NLP backend.
- Source - *github.com/RobertoTakesMHacks/TextSimplifier*

INPHO! (Hack ATL - Winner of "Best Open Source Hack")   November 2014
- A web app that uses location data to give the user the information of the business they are currently at. Just open the app and see the menu, specials, and interactive features. Businesses can sign up on our website.
- Developed the entire backend/database logic using JS, NodeJS, express and MongoDB, using Mongo's GeoNear feature.
- Designed and developed the entire front-end (including UI/UX) with Bootstrap, JS, and the google maps api.
- Beta available online - *inphoapp.com || inphoapp.com/nearby*

ASL Leap (HackDuke - Winner of "Best Use of Leap Motion" & "Best Versal Gadget")   November 2014
- An online gadget that teaches the American Sign Language with a Leap Motion, by verifying correct hand/finger position.
- Interfaced with the Leap Motion to gather hand tracking data using JS and the Leap Motion JS API.
- Created a schema for verifying the correct ASL hand position. Expandable to many hand/finger positions of the ASL.
- Developed the gadget using the Versal API. - Conceptualized and designed the UI and UX.
- Source - *github.com/iRapha/LeapVersal*

Conn Wars (Ludum Dare 30)   August 2014
- Worked in a team to create an online strategy game in under 72h, ranked #42/1000 for "theme" and top 25% for "innovation".
- Created the majority of the algorithms facilitating game logic, as well as the functions for A.I. integration.
- Designed the game's UI and created all visual graphics.
- Playable online - *connwars.com*
- Source - *github.com/GTludumDare/ludum-dare-30*

LEADERSHIP/ACTIVITIES

Model UNs (over 3, including ones in english)   2011, 2012, 2013
Filmmaking (Directed/Edited over 7 short films)   February - December 2012

OTHER

- Painting/Drawing/Art, Reading, Longboarding, Video games, TV Shows (Community, Arrested Development, OITNB, etc).
- Hacking at Hackathons