

JESSIE SALAS

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Cognitive Science
concentration in Linguistics
Computer Science
(May 2016)



Skills

Languages Fluency in English and Spanish, with working understanding of Portuguese and French.

Fluency in Python, Java, C, Scheme, R and Kolang, with working understanding of Javascript, HTML/CSS, Flask, Git.

Techniques Software engineering, NLP, data mining, statistics and computational modeling (regression/cluster analysis), sentiment analysis, interface-design, rapid product prototyping, entrepreneurial mindset, interpersonal communication, rhetorical writing, public speaking, group-collaboration, teaching.

Tools IBM Watson developer cloud, Scipy, numPy, Pandas, Matplotlib, Natural Language Toolkit, VIM, Adobe {Photoshop, Illustrator, Audition, Premiere}, Apache Spark (distributed computing), Apache TomCat, Apache ANT, Apache Maven, d3.js (static and interactive data visualization).

Research and Leadership

Lexical Linguistics and Large Data 2014-Present

Using the Google ngram data set, I designed a parallel algorithm to compute semantic similarity between words, and how that changes from 1800 to present. I work on a team directly under post-doctoral researcher Yang Xu and professor Terry Regier on a project that aims to use this data to gain insights on how words change meaning over time based on context, and what causes those meanings to change.

Cognitive Linguistics in UX 2014

I designed and deployed an experiment that analyzed how visual stimulus of Loading Bars interacts with linguistic constructs relating to how we speak of time, and how this stimulus affects how we perceive time durations while interacting with software.

MUSIC 98/198 Course Instructor

Fall 2013, Spring 2014, Fall 2014, Spring 2015, Present

I lead and instruct a for-credit course of undergrad and grad students at UC Berkeley, teaching the principles of jazz theory and improvisation.

STAT 94: Data Science & The Mind, Instruction Assistant Fall 2015

UCB undergrad pilot course for new data science curriculum. Help instructor set up & maintain course structure such as hw submission and autograding, and assist students with programming assignments.

WattTime Grid Marginal Analysis 2013-2014

I worked directly with the CEO and CTO of WattTime, a company which applies behavioral economics principles to reduce public energy consumption. I applied cluster-based statistical analysis to devise and implement the algorithmic backbone with which the company identifies a normalized notion of 'difference' between days in terms of a large amount of California CO₂ emissions data.

Cognitive Decision Theory 2013

I explored how the behavioral economic principles which describe default bias affect moral decisions, using a modified classic ethics study.

CSUA Vice President (Industrial Relations) 2015

Computer Science Undergrad Association indrel VP; liased with companies and organized funding for hackathons, info sessions, etc. Longest established undergraduate CS group at UC Berkeley.

UC Jazz Ensembles Web Master 2014

Oversee and maintain ucjazz.berkeley.edu website and email database.

UC Jazz Public Relations Officer 2013, 2014, 2015, 2016

I lead and manage public interactions of UC Jazz including social media presence, graphic designs, and print media.

UC Jazz Social Chair 2012

Manage and delegate event-planning and worked on organization-building teamwork.

Professional Experience

Apple Applied Machine Learning Summer 2015

I worked on the Data Science team of Apple's Applied Machine Learning Department in a self-contained 12-week technical project. Exact details not disclosable.

UX and Design Summer 2014

I worked on a team of entrepreneurs to revamp a young startup's public presence. I managed the redesign of Mythus's brand identity alongside its CEO using all forms of media including print, web, and video, as well as user experience of products.

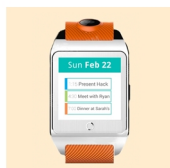
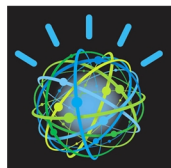
Independent Graphic/Web Design 2011-Present

I have a history of independent graphic and web design, through which I've developed a strong portfolio of commissioned works for a variety of clients, including UC Berkeley campus groups, bay-area musicians, and local startups.

What I've built

IBM Watson Developer 2014-2015

I was chosen through a competitive application to work in a national competition leveraging IBM Watson's cognitive computing capabilities. My team developed an app which facilitates the patent application process using Watson's Q-A API.
1st Place UCB, 3rd place National; chosen by judges from IBM.



InTime 2015 + In-progress

A team and I developed an android smart watch app prototype that uses location data to learn your average travel time, and recommend more accurate times-to-leave.

Awarded 1st Place at UCB campuswide inWatch hackathon.
Awarded 1st Place at Mobile World Congress International Hackathon in Barcelona, Spain 2015.

Etude Spring 2014

Award-winning software which automates the creation of etudes based on an implementation of text-parsing techniques and music theory to decide optimal notes to practice over given chord changes.
Awarded 4th place at Berkeley CSUA Spring 2014 Hackathon by judges from Meraki, Rackspace, and Electronic Arts. (24hr Hackathon)



Symba Fall 2014 + In-progress

I co-developed an Android Application called Symba, which stands for Symbol-analysis; it's an approach to learning jazz improvisation by methodically practicing each chord symbol. I am currently collaborating on a team which is pursuing a web implementation and increased functionality.

Foxtrot Fall 2014

Award-winning software which accepts related-rates calculus word problems in natural language, builds a relational data structure based on the input, and solves the problem, explaining it to the user in an attractive user interface.

Awarded 1st place at "Hackers at Berkeley" Fall 2014 Hackathon (12 hr hackathon)



Punderful Spring 2014

Award-winning software that decomposes natural language into words, constituent syllables and speech sounds to implement processes for computer-generated wordplay. Spoonerisms were recently implemented.

Awarded 'Best Presentation' at "Hackers at Berkeley" Spring 2014 Hackathon (12 hr hackathon)

More at www.linkedin.com/in/jessiesalas