

Desirée De Leon

I enjoy using code, design, and illustration to build new products and make teaching about technical content feel fun and engaging.



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CONTACT

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🔗 desiree.rbind.io
🐙 github.com/dcossyleon
🐦 [dcossyle](https://twitter.com/dcossyle)

SKILLS



HTML
CSS
Git
Photoshop
Illustrator

Made with the R package
pagedown.

Source code available:
github.com/dcossyleon/cv.

Updated: 2020-04-30.



EDUCATION

2020
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2014

PH.D., NEUROSCIENCE

Emory University

📍 Atlanta, GA

- Advisors: Larry J. Young; Mar M. Sanchez
- GPA: 4.0

2011
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2007

B.S., NEUROSCIENCE B.A., SPANISH

Indiana University

📍 Bloomington, IN

- Departmental Honors and Highest Distinction
- Linguistics minor
- GPA: 3.967

• Study Abroad:

University of Otago, *New Zealand* (Spring 2010)
Pontificia Universidad Católica del Perú, *Peru* (Fall 2009)
Comparative Education Study Tour, *Japan/China* (May 2009)
African Diaspora Studies Summer Program, *Ghana* (May 2008)



AWARDS & SCHOLARSHIPS

2020
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2014

GRADUATE

- **National Science Foundation Graduate Research Fellow** (2015-2020)
- Graduates in Neuroscience Scientific Outreach (2016)
- Laney Development Council Leadership Award (2016)
- Emory Graduate Diversity Fellowship (2014 -2019)

2011
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2007

UNDERGRADUATE

- **Indiana University Herman B Wells Scholar**: 1 of 25 full-ride scholarships to Indiana University (2007-2011)
- **Senator Richard G. Lugar Scholar**: 1 of 2 recipients of \$20k award from Fund for Hoosier Excellence to attend college in Indiana (2007- 2011)
- **Others**: James Dinsmoor Award in Psychological and Brain Sciences, Margaret Russell Edmondson Undergraduate Research Award in Genetics, Sigma Xi Scientific Research Society, Phi Beta Kappa, Founders Scholar, Ronald E. McNair Scholar, Hudson & Holland Scholar, Hispanic Heritage Award for Academic Excellence

I also write about my data science projects on my blog desiree.rbind.io.



RESEARCH & DATA SCIENCE EXPERIENCE

2020
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2019

TEACUPS, GIRAFFES, & STATISTICS

Online modules for learning statistics and R

📍 bit.ly/giraffe-stats

- Statistics content taught in an approachable way, using a fictional story about miniature giraffes.
- Created more than 50 original illustrations, including hand-annotated and animated plots.
- Created entirely in R Markdown
- Co-authored with Hasse Walum.

2019
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2014

EMORY UNIVERSITY DEPARTMENT OF PSYCHIATRY & BEHAVIORAL SCIENCES

Doctoral research

📍 Atlanta, GA

- Modeled the relationship between genetic factors and social behavior.
- Applied parametric and non-parametric methods and simulations in R.
- Collaborated with technicians, scientists, and students to collect and manage raw data for longitudinal studies.

2019

RSTUDIO

Summer intern with Alison Hill

📍 Remote

- Developed an online book for educators to leverage data science tools
- Created guides for building R Markdown-related websites, tutorials, and data packages.
- Designed templates with custom HTML and CSS for out-of-the-box implementation

2019

DATA SCIENCE FOR SCIENTISTS ATL

Member

📍 Atlanta, GA

- Participated in planning regular data science talks and co-working code sessions, and workshops.

2019

EMORY CODING CLUB

Co-founder

📍 Atlanta, GA

- Taught R to students and trainees at Emory University

2010
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2008

IU DEPARTMENT OF PSYCHOLOGICAL AND BRAIN SCIENCES

Undergraduate researcher, Rebec Lab

📍 Indiana University

- Defended honors thesis on dysfunctional information processing in Huntington's disease.
- Received 1st place in poster presentations at 4 of 5 conferences participated

I have taught in the public school system and in higher education settings, using intuitive and data-driven instruction.



TEACHING AND PROJECT MANAGEMENT

- 2020 ● **SHARING ON SHORT NOTICE** 📍 RStudio
Invited webinar
· Co-delivered international webinar on quickly building R Markdown websites and hosting online.
- 2020 ● **THE WONDERFUL WORLD OF R MARKDOWN** 📍 Marcus Autism Center Coding Club
Online workshop
· Taught an introduction to R Markdown and hosting HTML pages on Netlify.
- 2020 ● **INTRODUCTION TO MACHINE LEARNING WITH THE TIDYVERSE** 📍 San Francisco, CA
rstudio::conf 2020
· Served as a TA for a two day workshop on introducing users to tidymodels, tidyverse packages for doing machine learning.
- 2019
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2018 ● **UNDERGRADUATE MENTOR** 📍 Atlanta, GA
Young Lab
· Supervised undergraduate for honors thesis research projects
- 2017
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2015 ● **ATLANTA CHAPTER FOR SOCIETY FOR NEUROSCIENCE** 📍 Emory University
Graduate representative
· Coordinated a program to pair neuroscientists from 3 universities to 60 local K-12 schools for outreach visits, reaching over 5,000 students, and increasing rate of successful pairs by 22% from previous year.
· Planned series of hands-on science demos at the Atlanta Science Festival, presenting to 1000+ public visitors.
- 2017
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2015 ● **GRADUATES IN NEUROSCIENCE CURRICULUM COMMITTEE** 📍 Emory University
Elected representative
· Redesigned course evaluations, increasing student response rate from 53% to 90% and increasing the proportion of descriptive feedback for each lecturer by a factor of 4.
· Implemented online system that improved ease of access and timeliness for 40+ instructors to receive their evaluations.
· Introduced teaching technique called "Checks for Understanding" and provided guidance to over 40 lecturers on its implementation, which 93% of students rated as having had a positive and helpful effect on first year neuroscience courses.
- 2017
|
2015 ● **ATLANTA BRAIN BEE** 📍 Atlanta, GA
Chair
· Led neuroscience Q&A competition for teens.
· Managed 4 coordinators and 49 volunteers to hold the largest Atlanta Brain Bee, including pre-Bee workshops.
· Designed and led trainings for local winner to prepare for nationals, ultimately placing 3rd at nationals (2016) and top 20 (2017)

2013
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2011

- **TEACH FOR AMERICA/ YES PREP PUBLIC SCHOOLS**
Founding 7th Grade Science Teacher 📍 Houston, TX
 - Selected as one of 5,066 from 47,900 applicants to work in national service corps and teach in under-resourced communities.
 - Analyzed achievement data regularly for 145 students to inform instruction and create personalized goals for all students.
 - Increased average student achievement in 7th grade science by 12% from the previous year.
 - Created over 20 short educational videos for K-12 students in inquiry-based learning and field experiences.



WEB DESIGN & ILLUSTRATION

2020

- **TIDYMODELS.ORG** 📍 tidymodels.org

2020
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2016

- **ILLUSTRATION AND DESIGN CONSULTING**
Contracted work
 - Developed custom CSS site themes for RStudio educational content
 - Produced illustration and/or video content for corporate sites or product campaigns.
 - Illustration clients include RStudio, Hewlett Packard Latin America, 20th Century FOX, and French newspaper group Le Monde.

2020

- **KEEYA'S NUMBERS** 📍 Keeya's Numbers
Children's Book
 - Illustrated story about data science for kids.
 - Created with Greg Wilson.

2017
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2015

- **100 DAYS OF TINY THINGS**
Original project
 - Created a daily series of 200 + illustrations, garnering an Instagram following @dcossyle of over 32,000 in less than 2 years
 - Featured in international media outlets, including interviews with BBC Mundo, BBC Radio 4, The Guardian, and Refinery29

2017

- **9TH ANNUAL SHORTY AWARDS FINALIST** 📍 New York City
Instagrammer of Year
 - 1 of 6 finalists recognizing the best online content creators
 - Nominated for illustration project 100 Days of Tiny Things



TALKS

2020

- **OF TEACUPS, GIRAFFES, AND R MARKDOWN** 📍 San Francisco, CA
rstudio::conf 2020
 - Talk about how to use narrative, design, and interactivity within R Markdown materials to enhance online content for learners.

I use illustration and clean designs in teaching and product design to make complex topics feel friendly and accessible.

2019

• HOW TO AVOID PSEUDOREPLICATION IN EXPERIMENTAL DESIGN AND ANALYSIS

Methods Aside: Institute for Quantitative Theory and Methods, Data Science for Scientists ATL & Graduate Research Interdisciplinary Team of Scholars

📍 Emory University

- Focused on statistical concepts and presented to an interdisciplinary audience

2018

• PSEUDOREPLICATION: HOW TO AVOID IT IN EXPERIMENTAL DESIGN AND ANALYSIS

Data Science for Scientists ATL

📍 Atlanta, GA

- Co-developed with Hasse Walum.

2018

• CALCULATING HERITABILITY OF RHESUS' SOCIAL TRAITS USING THE ANIMAL MODEL

Neuroscience Work-in-Progress (WIP) Seminar

📍 Yerkes National Primate Research Center

- Demonstrated Bayesian methods for estimating heritability in a large group of rhesus macaques
- Inter-departmental seminar



PUBLICATIONS

2020

• PERIPHERAL METHYLATION OF OXT AND OXTR GENES, CENTRAL OXYTOCIN LEVELS, AND SOCIAL BEHAVIOR IN MACAQUES.

Submitted to Hormones and Behavior.

- **De Leon D**, Nishitani S, Walum H, McCormack KM, Johnson Z, Wilson ME, Barr CS, Young LJ, Sanchez MM

2020

• IMPACT OF POSTNATAL EXPOSURE TO OBESOGENIC DIET AND LOW SOCIAL STATUS ON BRAIN STRUCTURAL DEVELOPMENT IN NONHUMAN PRIMATES.

In preparation for submission to Biological Psychiatry.

- Kyle MH, Kaldas A, Pincus M, Godfrey JR, Kovacs-Balint ZA, Morin EL, **De Leon D**, Li L, Howell BR, Styner M, Payne C, Ethun K, Wilson M, Sanchez MM.

2019

• HERITABILITY AND RELATIONSHIP OF OXYTOCIN RECEPTOR GENE VARIANTS WITH SOCIAL BEHAVIOR AND CENTRAL OXYTOCIN IN COLONY-REARED ADULT FEMALE RHESUS MACAQUES

BioRxiv. 2019, DOI: 10.1101/813287.

- **De Leon D**, Young L, Walum H, McCormack KM, LaPrairie JL, Lindell SG, Firesryche A, Johnson Z, Wilson ME, Barr CS, Sanchez MM

- 2013 • **GENOME SEQUENCE OF SERRATIA SP. STRAIN ATCC 39006, A MODEL BACTERIUM FOR THE ANALYSIS OF THE BIOSYNTHESIS AND REGULATION OF PRODIGIOSIN, A CARBAPENEM AND GAS VESICLES.**
Genome Announcements. 2013, 1(6):e01039-13
 • Fineran PC, Iglesias Cans MC, Ramsay JP, Wilf N, **Cossyleon D**, McNeil MB, Williamson NR, Becher SA, Stanton JS, Brugger K, Brown SD & Salmond GPC
- 2012 • **DYSFUNCTIONAL BEHAVIORAL MODULATION OF CORTICOSTRIATAL COMMUNICATION IN THE R6/2 MOUSE MODEL OF HUNTINGTON'S DISEASE.**
PloS One. 2012, 7(10): E47026, 1-9.
 • Hong SL, **Cossyleon D**, Hussain WA, Walker LJ, Barton SJ & Rebec GV



POSTER PRESENTATIONS

- 2019 • **EFFECTS OF SOCIAL SUBORDINATION AND CONSUMPTION OF AN OBESOGENIC DIET ON TOTAL BRAIN SIZE AND STRUCTURAL DEVELOPMENT OF CORTICO-LIMBIC REGIONS: A LONGITUDINAL STUDY IN INFANT AND JUVENILE MACAQUES.**
49th Annual Meeting of the Society for Neuroscience (SfN). 📍 Chicago, IL
 • Kyle MH, Kaldas A, Pincus M, Godfrey JR, Kovacs-Balint ZA, Morin EL, **De Leon D**, Li L, Howell BR, Styner M, Payne C, Ethun K, Wilson M, Sanchez MM
- 2018 • **PERIPHERAL METHYLATION OF MACAQUE OXT AND OXTR GENES, OXYTOCIN LEVELS IN CEREBROSPINAL FLUID, AND SOCIAL BEHAVIOR.**
 15th Annual GDBBS DSAC Student Research Symposium
 📍 Emory University
 • **De Leon D**, Nishitani S, Walum H, McCormack KM, Wilson ME, Smith AK, Young LJ, Sanchez MM
- 2018 • **PERIPHERAL METHYLATION OF MACAQUE OXT AND OXTR GENES, OXYTOCIN LEVELS IN CEREBROSPINAL FLUID, AND SOCIAL BEHAVIOR.**
 Presented at workshop *Understanding the Neuroregulatory Actions of Oxytocin and its Potential Clinical Applications*.
 📍 Erice, Sicily, Italy
 • **De Leon D**, Nishitani S, Walum H, McCormack KM, Wilson ME, Smith AK, Young LJ, Sanchez MM
- 2018 • **SEX DIFFERENCES AND GENETIC VARIATION IN OXYTOCIN RECEPTOR GENE OF MONOGAMOUS PRAIRIE VOLE.**
Neuroscience and Behavioral Biology Symposium. 📍 Emory University
 • Rubin KF, **De Leon D**, Walum H, Inuoe K, Young LJ

2017

● **PERIPHERAL METHYLATION OF MACAQUE OXT AND OXTR GENES, OXYTOCIN LEVELS IN CEREBROSPINAL FLUID, AND SOCIAL BEHAVIOR.**

Yerkes Research Symposium  Yerkes National Primate Research Center

- **De Leon D**, Nishitani S, Walum H, McCormack KM, Wilson ME, Smith AK, Young LJ, Sanchez MM
- One of five winners for best presentation

2017

● **PERIPHERAL METHYLATION OF MACAQUE OXT AND OXTR GENES, OXYTOCIN LEVELS IN CEREBROSPINAL FLUID, AND SOCIAL BEHAVIOR.**

47th Annual Meeting of the Society for Neuroscience (SfN).

 Washington, DC

- **De Leon D**, Nishitani S, Walum H, McCormack KM, Wilson ME, Smith AK, Young LJ, Sanchez MM

2017

● **PERIPHERAL METHYLATION OF MACAQUE OXT AND OXTR GENES, OXYTOCIN LEVELS IN CEREBROSPINAL FLUID, AND SOCIAL BEHAVIOR.**

Annual Meeting of the Society for Neuroscience (SfSN)

 Washington, DC

- **De Leon D**, Nishitani S, Walum H, McCormack KM, Wilson ME, Smith AK, Young LJ, Sanchez MM