

Data Science Newsletter

Greetings from Data Science Advising. Welcome to the fifth issue of our Newsletter! If you missed previous issues, make sure to check them out [here](#).

Major Updates



Spring 2019 Data Science Commencement Slideshow!

Do you want photos of you and your friends *staying up until 3am* working on data science projects to play on a slideshow at Commencement? [Send us your photos!](#)

Please visit our [Spring 2019 Commencement Webpage](#) for the link to the online registration form, if you have questions you can email Marjorie Ensor at ensor@berkeley.edu.

Seniors and graduating Data Science majors, don't forget to register for Spring 2019 Commencement by **April 15th!**

UGBA 147.1A Advanced Business Analytics

Advanced Business Analytics (3 units) with Richard Huntsinger is being offered in **Summer Session A (May 28th - July 5th)** on **MWF 3:30pm-6:00pm**. If you are especially interested in expanding your knowledge and skills in the topic of data analysis and business decision methodology or data analytic methods, this class might be for you! There are still plenty of seats available and it is not too late to enroll.

For questions about this course, please feel free to contact the instructor, Richard Huntsinger at rhuntsinger@berkeley.edu.



Course Overview

Successful business analysts, managers, and executives are increasingly required to make data-driven decisions to run their businesses, rather than rely on experience and intuition alone. This course teaches you the latest data-analytic methods and decision methods used by leading-edge business practitioners, going deep to understand their technical inner workings and being clear to realize their practical business applications.

- Data analysis/business decision methodology
- Real-world/real-data business case studies across a variety of industries
- Introduction to software for data analysis
- Stock market predictive data modeling project

Instructor Biography

Dr. Richard Huntsinger is a professor, Silicon Valley entrepreneur, and Fortune 500 operations executive with broad international experience leading data analysis, enterprise software development, system integration, and computer networking projects of organizations like Hewlett-Packard, IBM, Oracle, Intel, Intel Labs, Cisco, Wright, and CD Department of Energy. Recent projects include electronic circuit manufacturing in smart electric grids, data warehouse optimization in high-tech and defense operations, and process automation in nuclear power plant operations.

Dr. Huntsinger earned his PhD in Engineering & Applied Science from Columbia University and MBA from University of California Berkeley.

Suggested Preparation
A background in introductory statistics, decision modeling, or programming will be useful, but not required.

Course Outline

Data Analysis/Business Decision Methodology
Business Decision Theory, and Analytics
Model Performance Metrics: Model Accuracy
Data Evaluation & Preparation Methods

Descriptive Data Analysis Methods
Classification Modeling
Quantitative Modeling

Model Evaluation & Testing
Model Accuracy, Confusion Matrix, Analysis, Cross Validation, Sensitivity Analysis, Model Selection, Feature Scaling, Hyperparameter Tuning

Predictive Data Analysis Methods
Linear Regression, Logistic Regression, Decision Trees, Support Vector Machines, Naive Bayes, Ensemble Algorithms, Multi-class Binary, Classification & Regression Models

Business Case Studies
Stock Market, Banking, Energy, Real Estate, Airlines, Hospitality, Retail, Cell Phones, Market Segmentation, Airlines, Transportation, Internet, Healthcare, Diversity

Psychology Summer Courses

Looking for courses to take this summer? Want to learn about topics like Emotional Intelligence, Stress and Coping, or Human Sexuality? Check out the courses being offered by the Psychology Department. This is a great opportunity to take

UNIVERSITY OF CALIFORNIA BERKELEY • SUMMER 2019 • DEPARTMENT OF PSYCHOLOGY

SPEND YOUR SUMMER WITH *psychology*

From brand new classes to your favorite professors, there's something for all students to enjoy!

COURSE OFFERINGS

SESSION A (MAY 28 - JULY 5)

100A - *General Psychology* Prof. Ruth Horowitz-Denton
 100B - *Health Psychology* Prof. Jason Fisher
 100C - *Psychology of Persuasion* Prof. Oliver John

SESSION C (JUNE 24 - AUG 16)


100M - *General Psychology*
 100N - *Learning and Memory*
 100O - *Research and Data Analysis in Psychology*

SESSION D (JULY 8 - AUG 16)

100P - *General Psychology*
 100Q - *Introduction to How the Brain Works*
 100R - *Evolutionary Psychology*
 100S - *Techniques in Psychology: The Internet Revolution and the Rise of the Virtual Self*
 100T - *Stress and Coping*
 100U - *The Brain on Sex*
 100V - *Brain on Social Media*
 100W - *Human Sexuality*
 100X - *Developmental Psychology*
 100Y - *Gender and Sexuality*
 100Z - *Journal of Experimental Psychology*
 100AA - *Journal of Experimental Psychology*

SESSION E (JULY 29 - AUG 16)

100AB - *Medical Body and Health*
 100AC - *Global Mental Health*




some of the most popular courses that often get full during the semesters.

If you have any questions, please contact psychsso@berkeley.edu.

Student Opportunities

DIVISION OF DATA SCIENCES SUMMER 2019 RECRUITMENT

- > **INTERNAL OPERATIONS**
Manage the initiatives that draw all of our student programs together, and learn the ins-and-outs of a rapidly growing academic organization and make your mark on the largest Data Science education program in the nation.
- > **DATA SCIENCE EDUCATION PROGRAM**
Hone your skills as an educator and a data scientist by developing educational materials for various courses, conducting data analysis, or integrating issues of human contexts and ethics into the Data Science community.
- > **DISCOVERY RESEARCH**
Being connected to data science driven research projects, you will be able to engage in hands-on research with one of our many partner organizations, including non-profits, start-ups, institutions, and faculty.
- > **MORE INFO:** bit.ly/ds-teams-apply



Summer 2019 Division of Data Sciences Student Opportunities

Student teams and interns are instrumental in driving the efforts of the Division forward. These students work directly with faculty to create new data science content for courses across campus. They analyze student surveys and course enrollment data and derive conclusions that help shape the future of these programs. They write blog posts, create social media followings, produce videos, and serve as ambassadors of our program everywhere they go. The students are the heart of our program!

Check out the Application Portal at bit.ly/ds-teams-apply and click "Learn More" to read about each position. Applications are due at **11:59pm on Friday, April 12th.**

Student Assistant Analyst for Residential Living

Participate in the management of assessment projects, determine appropriate analytical methodologies, and analyze resulting data sets, and assist with writing technical reports, memos, data summaries, abstracts, and publications to provide research results for both internal and external audiences!

Please go to our [Student Application website](#) to apply. Applications will be reviewed as they are submitted, and scheduling for interviews will begin shortly thereafter. Invitations for interviews will be sent via e-mail.

Data Science Internship at Samba TV



Hi! We just opened up a new Data Science Intern position. This is great opportunity for recent grads!

Samba TV, recognized by Inc. Magazine as one of the fastest growing companies in the US and one of the "most interesting ad-tech upstarts of the year" by Business Insider, is seeking to hire a Data Scientist to join our Data Science & Analytics team and help us build the first real-time cross-screen TV analytics platform that brings the power of online analytics to TV data.

Samba TV is uniquely positioned at the forefront of the TV revolution. The way people discover, watch, and engage with television has fundamentally changed, and we're connecting the dots to help better understand audience trends and viewership habits for

marketers.

The perfect candidate will have a background in math, stats, physics, econometrics, computer science or a related quantitative field, will have experience working with large data stores, statistical modeling, and will have experience building production level software.

[Apply here!](#)

If you have any questions, please email karla.xochicale-denicia@samba.tv.



Lawrence Hall of Science Summer Camp Counselors

Want to share your excitement for science this summer?

For 50 years, the Lawrence Hall of Science has been a leader in providing science education with local, national, and global impact. Each year, the Hall reaches over **12 million people** through its programs, instructional materials, and other resources.

This summer you have the opportunity to be part of that impact. You can join our team of talented, and dedicated professionals to lead fun, engaging, and meaningful hands-on **STEM learning experiences for youth**. This unique opportunity to lead and mentor youth will offer you challenge, reward, leadership skill development, and personal growth to take the next step in your career path.

Your application for Summer Camp Counselor is only two steps away...

1. **Go to:** <https://tinyurl.com/yynhckrt>
2. **Click:** Apply Now for Camp Counselor (4157U) - #26451"

If you are a U.C. Berkeley student, just email your cover letter and c.v. in a single attachment to: joannaoren@berkeley.edu.

Analytic Intern (Part-time, Oakland, CA)

Kaiser Permanente is seeking interns in the **TPMG Consulting Services department**.



In this position, you will work with healthcare data as part of the **Member Patient Satisfaction Reporting Team**. This position allows you to better understand how a large healthcare organization uses data to drive improvements in patient care. You will learn what types of questions and hypotheses health care professionals have regarding patient satisfaction and how those questions can be answered using data analytics.

Your internship will culminate with a presentation on a research project you will conduct with your fellow interns throughout the year. This position is ideal for a senior in college or a recent graduate who aspires to become a successful health care analytic consultant.

Job Description:

- Prepares and verifies quarterly reports for accuracy before publication
- Reads and processes patient comments
- Creates graphs and tables
- Performs quality control on surveys
- Conducts data exploration and analysis on healthcare data
- Provides client service to healthcare providers

Job Qualifications:

- An interest in data analysis, health care, or research
- Strong problem-solving skills, attention to detail, and communication skills

- Interest in learning SAS, SQL, Excel, Tableau

Details:

- This is a 12-month position starting in Summer 2019
- A commitment of 12+ hours/week minimum is required
- This is a paid non-clinical position
- We are located within walking distance to the 19th St. BART station

To Apply: Please email your cover letter, resume, and unofficial college transcript(s) to: MPS-Team-Hiring@kp.org.



University of California
San Francisco

Research Position for Berkeley students @ UCSF

We are recruiting for one part-time position who is interested in working on computational public health research related to infectious diseases. The project would focus on developing computational models to improve infectious disease surveillance and guide public health decisions.

You will work under the supervision of [Dr. Nathan Lo](#) at UCSF (previously Stanford MD/PhD) and other members of the laboratory. You will be credited academically for your contribution. If you are interested, please contact us with your CV and cover letter (nathan.lo@stanford.edu).



EY's NextWave Data Science Challenge

This challenge is aimed at finding the next generation of data science superstars and **you may be one of them!**

For this global competition, you will need to use your data science and analytics techniques to analyze real-world problems through data and make findings that will help build a better working world.

By participating in the EY NextWave Data Science Challenge, you can hone your technical skills, develop new expertise and, if you do well, **win an internship with EY and up to US \$8,000**. Third in Universum's annual "World's Most Attractive Employers" ranking, EY's portfolio of clients includes some of the most recognized brands in the world. Winning students will be exposed to an environment where various data science techniques are constantly applied to solve some of the trickiest challenges faced by governments and organizations today.

Go to the challenge website ey.com/datasciencechallenge for more information. Registration opens **March 1** and all the data required and details to complete the challenge will be available when the competition begins April 1. **Entries will close on May 10.**

If you have any questions, please email rachelle.kresch@ey.com. Good luck!

PSG Sports Analytics Challenge Case Competition

The Sports Analytics Group at Berkeley is partnering with Paris Saint-Germain, École Polytechnique, Opta Sports and Agorize, to bring you the **PSG Sports Analytics Challenge** for our third annual case competition!

You'll have access to first-party soccer data, based on the French top-flight matches and have the opportunity to use your technical skills to work toward developing better insights and improving the on-field performance of PSG.



The competition overall winner will receive €100,000 and the chance to do PHD research in Paris at École Polytechnique on optimizing sports performance. The top five worldwide finalists will be **flown to Paris** to present at Parc des Princes in front of PSG executives. There's a bunch of other prizes available on the website! As this is a worldwide competition, you can work with anyone but only one person may submit. There are also **Berkeley specific prizes!** The top submission from Berkeley will win a cash prize from the Sports Analytics Group at Berkeley and the top three submissions will win a SAGB prize pack!

How to Register:

- 1) Fill out this [Google Form](#)
- 2) Make an account and download the data from [here](#)

All submissions are due by April 14th and you can check our [Facebook event](#) or contact sagberkeley@gmail.com for more details!

Upcoming Events

CalDay - April 13, 2019

The Division has an exciting lineup of events for **CalDay**, including panel discussions on the **new major and data science research and discovery** across campus. Stop by to meet data science students, faculty, researchers and staff!



Data Science Information Table

Time: **9 AM - 4 PM**

Location: Information Marketplace

Data Science Major Information Session

Time: **11 AM - 12:00 PM**

Location: 10 Evans Hall

Panel: Data for All

Time: **1 - 2 PM**

Location: Wheeler Hall

Data Science Student Research Showcase

Time: **1 - 3 PM**

Location: 190 Doe Library