



## Data Science Newsletter

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

### Major Updates

#### Don't forget to enroll in Data Science Connector Courses!

Connector courses are 2-unit courses that weave together core concepts and approaches from Data 8 with complementary ideas or areas. Along the way, students gain additional experience, broader insights, or deeper theoretical or computational foundations.

Offered by faculty across many departments and fields of study, connectors are optional but **highly encouraged** and are designed to be taken at the same time or after the Foundations course.

Check out some of our awesome Fall 2019 [Connector Courses](#):

- [COMP SCI 88 001 - Computational Structures in Data Science](#)
  - Have you taken Data 8 or are signed up for this fall? Are you pumped for the DS major but pressed for time? Have you enjoyed programming and want to build complex programs? CS 88 is a 2 unit connector course that leverages the computing you learn in Data 8 and covers much of the material you would learn in CS 61A. CS 88 gives you a solid foundation for CS 61B, and significant programming experience you can leverage in other courses and projects. We will cover a variety of topics such as functional programming, data abstraction, object-oriented programming, and program complexity. These are foundational ideas in computer science which you'll be able to apply to future learning in Data Science and Computer Science!

These 2 units shouldn't be taken lightly. It's a lot of material to cover, but we've got a team of enthusiastic, experienced TAs, awesome tutors, CSM staff, and enthusiastic lab assistants to help you on this journey. We expect Fall 2019 to be our best offering yet! Read more at [cs88.org](http://cs88.org).

- [Data 88 001 - Economic Models](#)
  - This Data Science connector course will motivate and illustrate key concepts in Economics with examples in Python Jupyter notebooks. The course will give data science students a pathway to apply python



programming and data science concepts within the discipline of economics. The course will also give economics students a pathway to apply programming to reinforce fundamental concepts and to advance the level of study in upper division coursework and possible thesis work.

- **Data 88 002 - Data Science in Genetics and Genomics**
  - Recent years have witnessed a rapid expansion in the creation and utilization of genetic and genomic data across diverse domains such as business, biological research, and medicine. In this Data 8 connector course we will survey relevant questions of interest and employ the methods frequently relied upon by analysts to derive insights from genetic and genomic data. Topics will include the comparison of DNA sequences, dimension reduction, the characterization of transcriptomes, and genome-wide association studies, among others. In addition to hands-on work with data, we will also consider the history of the genetic and genomic sciences and their intersection with current events, ethics, and modern medicine. Students should exit with an understanding of the central role played by data in the fields and an appreciation for the remaining challenges in light of ever-increasing degrees of personalization of, and access to, these sciences. No biological background is required.

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## Student Resources

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### Basic Needs community at UC Berkeley

**Location:** Lower level of MLK Student Union (BNorth), Suite 72

**Mailing Address:** 2495 Bancroft Way, Suite 72, Berkeley CA 94720-4500

**Open Hours:** Monday - Friday, 9 AM - 5 PM. Our center's hours will be extended throughout the semester.

The [Basic Needs Center](#) serves as a physical resource hub for basic needs resources and services. The Center also is a space for students to create community and access coordinated support for their basic needs. We are committed to cultivating wellness and belonging in the Basic Needs Center space.



**Cal Fresh Application Assistance Summer Hours:**  
Monday- Thursday  
2:00-4:00

**Location: Basic Needs Center located in MLK Student Union B-North**

Cal Fresh is a federal program that helps you buy groceries! Whaaat? Yes!

You can receive up to \$192 in grocery money per month, and you are eligible for additional support if you have dependents.

Our Cal Fresh coordinator will be here to assist students with their Cal Fresh applications.

Have questions? Come through.

Want shmoney for food? Come through.

### Below are our current services based out of our center:

- **Case management:** Need support navigating your current housing situation? Want to consult about food and housing resources? Book an appointment with the Basic Needs Manager by emailing [kiyoko@berkeley.edu](mailto:kiyoko@berkeley.edu)
- **CalFresh:** Want support with your CalFresh application? If you would like to have the help of a certified CalFresh outreach worker or to walk you through the application process, you can attend a CalFresh Application Session. For additional information, visit <http://calfresh.berkeley.edu>

### Satellite Drop-In Services (offered in fall and spring semesters):

- **Financial Aid:** Need financial aid counseling related to your housing or food needs? Drop-in to meet with our Basic Needs Financial Aid Counselor on Tuesdays from 11am-2pm.
- **Berkeley Rent Stabilization Board:** Need support around your rights as a tenant? Drop-in to meet with a rent board housing counselor on Wednesdays from 2-4pm.

- **CalFresh Appeal Clinics:** Were you CalFresh benefits denied or delayed? Attend a CalFresh denials clinic on March 6 and April 10 from 6-8pm.

## Student Opportunities

### Division of Data Science and Information Fall 2019 Student Opportunities

**REMINDER: Applications are closing soon!**

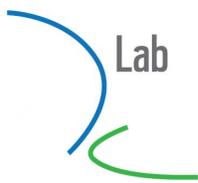
Applications for student opportunities at the Division are open and will close on **August 23rd!** There are many open positions and not all of them require a technical background, so we encourage all students from all backgrounds to apply!

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!

#### Student Teams and positions we're recruiting for:

- **Data Science Education Program (DSEP) Teams**
  - Curriculum Developer
  - Connector Assistant
  - Data Peer Consultant
  - Human Contexts & Ethics Team Member
  - External Pedagogy Team Member
  - Data Analytics Team Member
- **Internal Operations**
  - Communications Video Intern
  - Human Resources Intern
  - Program Assistant
  - Discovery Program Internal Operations Intern
  - Discovery Program External Operations Intern
- **Discovery Research Program**
  - Student Researcher
    - To see a list of really cool tentative Student-pitched Projects that will be a part of this program this Fall, please [click here](#).
    - To see all the amazing tentative Partner Projects for this Fall, please [click here](#).
- **Peer Advising**
  - Are you looking to give back to your community and help advise students who are just beginning to find their path into Data Science? Please apply and provide guidance based off of your experiences with the major, research, extracurriculars, and chat with fellow students about fun or crazy difficult courses!

To find job descriptions for each position and to find the applications, please visit: [bit.ly/ds-teams-apply](http://bit.ly/ds-teams-apply).



#### D-Lab and Statistics R Bootcamp

The Statistics Department and D-Lab are offering an introductory short course on the statistical/data science software R on Saturday-Sunday, August 24-25.

The short course will be a thorough introduction to working with data, statistical analysis, and programming in R, with no prior knowledge assumed. See <http://dlab.berkeley.edu/training/r-bootcamp-3> for details.

If you are interested in attending, please register at <https://forms.gle/Ycmfun2mVsSJcjbT8>.

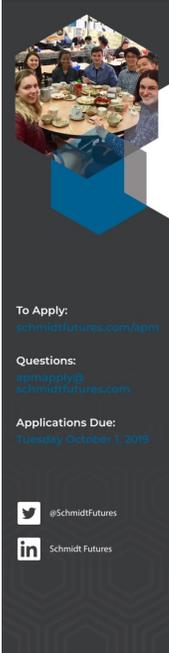
Attendance is free of charge. If you have questions about the bootcamp, please email [r-bootcamp@lists.berkeley.edu](mailto:r-bootcamp@lists.berkeley.edu).

## Schmidt Futures Associate Product Manager Program

Schmidt Futures recently opened the application for the next cohort of Associate Product Managers (APMs)! This unique program gives graduating seniors and recent graduates the opportunity to use their computer science skills to help solve major societal challenges, while receiving valuable mentorship from leaders in tech like Eric Schmidt and others. **The deadline to apply is October 1st, 2019.**

For more information on the program, as well as the link to the application, please visit [schmidtfutures.com/apm](http://schmidtfutures.com/apm).

If you have any questions, please reach out to [apmapply@schmidtfutures.com](mailto:apmapply@schmidtfutures.com).

A vertical graphic for the Schmidt Futures Associate Product Manager Program. At the top, a group of people is shown around a table. Below this is a large blue arrow pointing downwards. The text 'To Apply: schmidtfutures.com/apm' is in red. Below that, 'Questions: apmapply@schmidtfutures.com' is in red. Then, 'Applications Due: Tuesday October 1, 2019' is in red. At the bottom, there are social media icons for Twitter (@Schmidtfutures) and LinkedIn (Schmidt Futures).

## SCHMIDT FUTURES ASSOCIATE PRODUCT MANAGER PROGRAM

### What is Schmidt Futures?

Schmidt Futures is a philanthropic initiative, founded by Eric and Wendy Schmidt, that bets early on exceptional people who will make our world better. As a venture facility for public benefit, we help people do more for others by imagining what's possible, applying advanced science and computing thoughtfully, and working together in networks across fields.

### What is the APM Program?

The Schmidt Futures Associate Product Manager (APM) program is modeled after a program first developed at Google as a way to give new computer science graduates unusual freedom and leeway in creating high impact projects. The program brings together talented young leaders with technical training in computer science, machine learning, and artificial intelligence, fields that are central to solving the world's most pressing problems. APMs will receive personalized leadership training, deepen their technical skills, participate in APM class trips around the world, regularly meet in small groups with CEOs and world leaders, and be mentored by a network of distinguished figures in technology, including Eric Schmidt, former CEO of Google and Executive Chairman of Alphabet.

### Who should apply?

Schmidt Futures is now accepting applications from graduating seniors or recent graduates for our fall 2020 cohort of Associate Product Managers. We strongly encourage people with diverse backgrounds and skills to apply.

### What is the commitment?

The APM program entails a two-year, full-time commitment, during which APMs will be based in New York, with travel to Silicon Valley and other geographies as needed.



## Center for Long-Term Cyber Security Student Assistant Position

CLTC is searching for a Student Assistant to help with operations and administrative work at the Center. If you are interested in this opportunity, please take a look at the position description below and follow up with [cltc@berkeley.edu](mailto:cltc@berkeley.edu) if you have any questions.

### Responsibilities:

Responsibilities will include working with the Center's core staff on project management and business systems, including leading a Team Drive implementation and migration project. The administrative responsibilities will include maintaining and updating contact lists and records of interactions; help with purchasing, reimbursements and gift/grant receiving; and regularly updating various components of our web content (e.g., populating our job board and events feed). The Student Assistant will also work with CLTC's Events and Communications Specialist on external communications and event support, specifically with regard to student engagement. The student will be a part of a small and nimble team, with lots of opportunity to be exposed to many different aspects of managing the relationships, events, and communications of a research center. Hours are flexible, and there is the option of working remotely for part of the time. Ideally, the student would start working immediately, and would extend into the fall semester of 2019.

### Qualifications:

You must be a current UC Berkeley undergraduate student to be eligible for this position.

Ideally, applicant should be highly organized, detail-oriented, and able to pivot across a variety of different projects. Familiarity with UC Berkeley administrative systems and processes is strongly preferred. Experience with managing professional social media (Twitter, Facebook, LinkedIn) is preferred.

### Additional Information:

To apply, please send resume to CLTC at [cltc@berkeley.edu](mailto:cltc@berkeley.edu)

**Job Title:** Student Assistant

**Employer:** Center for Long-Term Cybersecurity, UC Berkeley School of Information

<https://cltc.berkeley.edu/job-board/student-assistant/>



The flyer for the Rudd Family Foundation Big Ideas Contest features a yellow background with a pattern of faint icons. At the top, it says '2019-20 RUDD FAMILY FOUNDATION BIG IDEAS CONTEST'. Below that, the word 'BELIEVE' is written in large, bold, blue letters. Underneath 'BELIEVE' is the tagline 'IN THE POWER OF YOUR IDEAS' and 'UP TO \$300,000 AVAILABLE FOR EARLY-STAGE, STUDENT-LED, SOCIAL INNOVATIONS'. A row of seven colorful icons (lightbulb, gears, leaf, flower, globe, gear, and people) is displayed. Below the icons, it says 'COME TO AN INFO SESSION TO LEARN MORE!' followed by the dates and times: 'Thursday, Sept. 12 at 6pm (100 Blum Hall)' and 'Wednesday, Sep. 25 at 6pm (100 Blum Hall)'. At the bottom, it states 'APPLICATIONS DUE NOVEMBER 20, 2019!' and 'FOR MORE INFORMATION VISIT [BIGIDEASCONTEST.ORG](http://BIGIDEASCONTEST.ORG)'.

### Rudd Family Foundation Big Ideas Contest

[Big Ideas](#) is an annual contest aimed at providing funding, support, and encouragement to interdisciplinary teams of students who have “big ideas.” Since its founding in 2006, Big Ideas has inspired innovative and high-impact student-led projects aimed at solving problems that matter to this generation. By encouraging novel proposals and then supporting concrete next steps, Big Ideas is helping contest winners make an impact all over the world.

The infrastructure of this contest is made possible through the generous support of the Andrew & Virginia Rudd Family Foundation.

Come to an **info-session** to learn more! Please see the flyer for location, dates, and times.

**[Applications](#) are due November 20th, 2019!**

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## Fall 2019 Courses

### E150 - Basic Modeling and Simulation Tools for Industrial Research Applications (3 units)

**When:** Tuesdays and Thursdays 2:00pm - 3:30pm

**Where:** 310 Jacobs Hall

**Instructor:** T. Zohdi

The course emphasizes elementary modeling, numerical methods & their implementation on physical problems motivated by phenomena that students are likely to encounter in their careers, involving biomechanics, heat-transfer, structural analysis, control theory, fluid-flow, electrical conduction, diffusion, etc. This will help students develop intuition about the strengths and weaknesses of a variety of modeling & numerical methods, as well as develop intuition about modeling physical systems & strengths and weaknesses of a variety of numerical methods, including:

- Discretization of differential equations,
- Methods for solving nonlinear systems,
- Gradient-based methods and machine learning algorithms for optimization,
- stats & quantification

**Course Listing:** <https://classes.berkeley.edu/content/2019-fall-engin-150-001-lec-001>

**Syllabus:** [https://drive.google.com/file/d/1cTs6htnCYRmH\\_Vyy8lf3rtPI1znVzom/view](https://drive.google.com/file/d/1cTs6htnCYRmH_Vyy8lf3rtPI1znVzom/view)

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### Fall 2019 Available UGBA Classes

Non-Haas majors are invited to wait list for these classes!  
Although enrollment from the wait list is not guaranteed, students will be added on a space available basis at the start

of Adjustment Period (week of August 19th).

**UGBA 135.001** (Class number: 33791) and **UGBA 135.002** (Class number: 33792) - Navigating Life's Financial Decisions (NOTE: The course content remains the same despite the course number and title change - this is the same course as the previously scheduled UGBA 196.001 and UGBA 196.002 Special Topics: Personal Financial Management).



**UGBA 190D** (Class number: 33440): Innovation and Design Thinking in Business

**UGBA 191L** (Class number: 33605) - Leadership Communication

**UGBA 192E** (Class number: 33410) - Social Entrepreneurship

**UGBA 190T.2** (Class number: 16724): Special Topics in Innovation and Design: Needfinding in the Wild

**UGBA 192N.1** (Class number: 19997) - Topics in Social Sector Leadership: Management Consulting Skills for Social Impact

**UGBA 192N.4** (Class number: 20159) - Topics in Social Sector Leadership: Negotiating Human Rights in Business

**UGBA 192T.1** (Class number: 19243) - Topics in Corporate Social Responsibility: Business Models and Strategies for a Better World

**UGBA 196.5** (Class number: 16730) - Special Topics in Business Administration: Becoming a Changemaker

Please refer to our [Special Topics web page](#) to learn more about any of the above listed Special Topics courses.

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## Upcoming Events

### Berkeley Center for New Media 2019 Open House

Wednesday, September 4 | 5-6:30 PM | BCNM Commons



Join the Berkeley Center for New Media for our annual open house!

Open to students, faculty, and staff, we invite you to visit us at the BCNM Commons to check out some of the exciting new media research taking place on campus. We look forward to introducing you to our new Director, Abigail De Kosnik, and sharing some of the incredible plans we have for the future of the Center.

We also want to hear from you! Tell us what you'd like to see from New Media on the Berkeley campus!

[RSVP HERE.](#)

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### Global Poverty & Practice Minor Information Sessions

The [Global Poverty & Practice \(GPP\) minor](#) is an interdisciplinary program designed to introduce students to the theoretical frameworks, methods, and practical skills necessary to engage with global poverty and inequality in effective ways. The "Practice Experience" is a central component of the minor in which students partner with organizations engaged in poverty action (e.g., non-governmental organizations, community organizations, government agencies, and other poverty or development

# global poverty and practice minor

programs). In conjunction with the coursework, this real world experience, which can take place domestically or internationally, allows students to connect theories and practices of poverty action. Students from all disciplines are encouraged to undertake the minor.

If you're interested in the minor, come and check out our **Fall 2019 Info Sessions!** Please see the attached flyer for location, dates, and times.

- \* Interdisciplinary courses on poverty and inequality
- \* International and local field work to connect classroom learning with real-world experience
- \* Funding available for field work
- \* Open to students in all majors -- no prerequisites required to declare

## FALL INFO SESSIONS | BLUM HALL B100 A/B

Check  
it out!

Wednesday	September 4	12pm - 1pm
Tuesday	September 10	4pm - 5pm
Thursday	September 19	3pm - 4pm
Tuesday	September 24	5pm - 6pm
Monday	September 30	12pm - 1pm
Friday	October 4	11am - 12pm

**FALL DECLARATION DEADLINE: OCTOBER 9TH**

[blumcenter.berkeley.edu/gppminor](http://blumcenter.berkeley.edu/gppminor) | [facebook.com/gppminor](https://facebook.com/gppminor)