Data Science Summer Camp Staff and MA Schedule

Program Directors:
Tianxi Cai, Professor of Translational Data Science, Harvard Medical School, Dept of Biomedical Informatics
Jessica Gronsbell, Assistant Professor, University of Toronto, Dept. of Statistical Sciences

Instructors:
Jessica Gronsbell, Assistant Professor, University of Toronto, Dept. of Statistical Sciences
Junwei Lu, Assistant Professor, Harvard School of Public Health, Dept. of Biostatistics
Kun-Hsing Yu, Assistant Professor of Biomedical Informatics, Harvard Medical School
Peter Potash, Senior Researcher at Microsoft Turing Montreal

Teaching Assistants:
Vidul Ayakulangara Panickan, Research Associate in Biomedical Informatics, Harvard Medical School
Michele Li, PhD candidate in the Bioinformatics and Integrative Genomics program, Harvard Medical School
Emily Gao, undergraduate at Harvard University studying Computer Science and Statistics

Program Staff:
Amanda King, Program Manager, Harvard School of Public Health, Dept of Biostatistics
Mo Moro, Project Coordinator, Harvard Medical School

https://celehs.hms.harvard.edu/camp_instructors.html
https://celehs.hms.harvard.edu/camp_team.html

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Orientation

Where: Countway Library, Drop-off point **695 Huntington Ave., Boston, MA 02115**
Time: July 7th, 11:00 am - 12:00 pm

10:45 AM	Meet students at 695 Huntington Ave., Boston, MA 02115.
11:00-11:15 AM	Ice Breaker Activities
11:15-11:30 AM	TA Introductions + Program Overview
11:30- 12 PM	1. Livestream: Introduction to the program by Tianxi/Junwei

	2. Q/A session and closing remarks + Snack + Socializing

Week 1

July 10-14, 2023 | 10:00am – 3:00pm

Time	Activity	Instructors
10:00am – 11:00am	Bootcamp: Introduction to Programming/Python	TAs
11:10am – 12:10pm	Practice + Q&A	TAs
12:20pm – 1:05pm	Troubleshooting and programming with Toy Car	TAs
1:15 - 2:05 PM	Lunch career talk with Guest Speakers	7/10 Layla Parast, University of Texas at Austin 7/11 Xuming He, University of Michigan 7/12 Benjamin Sanchez, Google 7/13 Maria Pacheco, University of Colorado 7/14 James Zou, Stanford University
2:15 pm – 3:00pm	Troubleshooting and programming with Toy Car	TAs

Week 2

July 17-21, 2023 | 10:00 am – 4:00 pm

Monday, July 17

MA Time	Activity	Topic	Instructors
10:00-11:20	Troubleshooting		TAs
11:30 -12:15	Introduction and Lecture on Statistics/ML	Conceptual introduction to data science	Jesse Gronsbell
12:25-1:05 PM	Programming Practice	Exploratory Data Analysis	TAs
1:15 - 2:05 PM	Lunch	Lunch career talk	Marzyeh Ghassemi, MIT
2:15 - 3:00 PM	Lecture on AI/ML	Conceptual introduction to deep learning and AI	Peter Potash
3:10-4:00 PM	Programming Practice	Intro to NN	TAs

Tuesday, July 18

MA Time	Activity	Topic	Instructors
10:00-11:20	Troubleshooting		TAs
11:30-12:15	Lecture on Statistics/ML	Least squares + Logistic Regression	Jesse Gronsbell
12:25-1:05 PM	Programming Practice	Logistic regression	TAs
1:15 - 2:05 PM	Lunch	Lunch career talk	Rebecca Hubbard,

			UPenn
2:15 - 3:00 PM	Lecture on AI/ML	Introduction to Convolutional Neural Networks	Kun-Hsing Yu
3:10-4:00 PM	Programming Practice	Introduction to Convolutional Neural Networks Part 1	TAs

Wednesday, July 19

MA Time	Activity	Topic	Instructors
10:00-11:20	Troubleshooting		TAs
11:30 -12:15	Lecture on Statistics/ML	Model Evaluation	Jesse Gronsbell
12:25-1:05 PM	Programming Practice	Introduction to Convolutional Neural Networks Part 2	TAs
1:15 - 2:05 PM	Lunch	Lunch career talk	Ana Kenny, UC Berkeley
2:15 - 3:00 PM	Lecture on AI/ML	Computer vision and convolution neural network	Junwei Lu
3:10-4:00 PM	Programming Practice	Introduction to Convolutional Neural Networks Part 3	TAs

Thursday, July 20

MA Time	Activity	Topic	Instructors
10:00-11:20	Troubleshooting + taking images		TAs
11:30 -12:15	Lecture on Statistics/ML	Clustering	Jesse Gronsbell

12:25-1:05 PM	Programming Practice w real data	clustering notebook	TAs
1:15 - 2:05 PM	Lunch	Lunch career talk	Larry Han, Northeastern University
2:15 - 3:00 PM	Lecture on AI/ML	Reinforcement learning	Junwei Lu
3:10-4:00 PM	Programming Practice	Transfer learning CNN	TAs

Friday, July 21

MA Time	Activity	Topic	Instructors
10:00-11:20	Car Working + Presentation		TAs
11:30 -12:15	Lecture on Statistics/ML	Health data science	Jesse Gronsbell
12:25-1:05 PM	Programming Practice	Chest x-ray dataset exercise	TAs
1:15 - 2:05 PM	Lunch	Lunch career talk	Aaron Sonabend, Google
2:15 - 3:00 PM	Last Lecture	Data science resources	TAs
3:15-4:00 PM	Final presentation		Both MA and CA site screen share

Parking Instruction for Countway Library

There is fairly limited parking in the area. If you do absolutely require parking here are a couple of nearby parking suggestions:

Metered street parking on Huntington Avenue.
Brigham and Women's parking garage on Francis Street.
Children's Hospital parking garage on Longwood Avenue.

Drop off information:

Countway Address Visitor and delivery address**: 695 Huntington Ave., Boston, MA 02115. This will be the easiest drop-off point and where we will meet for orientation!!** The official address of the building is 10 Shattuck Ave.

The closest T stop is Brigham Circle on the Green Line E train.

Lunch

Lunch and snacks will be provided. However, if you have dietary restrictions and would like to bring your own food, you are welcome to do so.

Laptops

If you have your own laptop, we suggest that you bring it so you can work on programming sessions independently. If you don't, that's ok - we will have computers you can use together.

Primary Contact

If you have any questions, please contact:

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Mohammed Moro - mohammed_moro@hms.harvard.edu