

Akshay Jaggi

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EDUCATION

HARVARD-MIT

MD-PHD

Expected 2029 | Boston, MA

STANFORD UNIVERSITY

B.S. BIOLOGY (HONORS)

Computational Biology Track

June 2019 | Stanford, CA

Cum. GPA: 4.0

COURSEWORK

GRADUATE

Biophysics Series

Dynamical systems modeling

Bioinformatics and Genomics Series

Multi-omic data handling and modeling

Algorithms and Data Mining

Algorithmic design

Unsupervised and Supervised learning

LINKS

LINKEDIN

<https://linkedin.com/in/akshay-jaggi/>

GITHUB

<https://github.com/akshay-jaggi>

TWITTER

https://twitter.com/akshayjaggi_

RESEARCH

DATTA LAB | COMPUTATIONAL NEUROBIOLOGY

July 2020 – July 2021 | Harvard University

- Software/Data Engineer for NIH U19 Team DOPE
- Large scale neurodata integration with NWB and Datajoint
- Optic Flow Analysis and Matrix Factorizations for Mouse Facial Expression

FULBRIGHT SPAIN | MEDICAL IMAGING

September 2019 – June 2020 | Universitat de Barcelona

- Independent in Dr. Karim Lekadir's Lab
- Studied association between cardiovascular disease risk and cognitive decline
- Dimension reduction and structural equation modeling of heart-brain imaging

SHATZ LAB | NEUROBIOLOGY

January 2019 – October 2019 | Stanford University

- Under Dr. Maja Djuricic in Dr. Carla Shatz' Lab
- Studied the role of PirB in Synapse Formation and Schizophrenia
- Investigated inhibitory effects of excitatory-neuron-specific PirB KO
- In-utero electroporations, tissue histology, automated image quantification

NAPEL LAB | BIOINFORMATICS

June 2017 – September 2019 | Stanford School of Medicine

- Independent in Sandy Napel's Radiological Imaging and Image Processing Lab
- Designed tools for radiomics analysis standardization across peer institutions
- Automated diagnosis of cancer via quantitative imaging and supervised machine learning

LANGUAGE AND COGNITION LAB | COGNITIVE SCIENCE

September 2016 – August 2019 | Stanford University

- Under Dr. Masoud Jasbi in Dr. Mike Frank's Lab
- Implemented random forest models of children's acquisition of formal logic

BEYOND THE LAB

LPCH | SOPHIE'S PLACE STUDIO COORDINATOR

October 2018 – September 2019 | Stanford, CA

Launched volunteering program at Lucille Packard's Children Hospital's Sophie's Place. This space is a multimedia TV and radio station dedicated to promoting patient mental health, community, and education. Recorded science project tutorial videos, recruited patient participants, and co-hosted shows with them. Engaged isolation patients in social and creative outlets

CAMP KESEM | BOARD MEMBER, COUNSELOR COORDINATOR, UNIT LEADER, CABIN COUNSELOR

January 2017 – Present | Stanford, CA

Managed recruiting, hiring, and training of 70 counselors for summer camp for children whose parents have cancer. Designed and lead trainings for counselors on conversations about parents' illnesses, personal mental health, and more. Focused on expanding diversity of counselor base through new recruitment outreach. Helped fundraise over \$200k annual budget.

KZSU STANFORD | GENERAL MANAGER & TEACHING ASSISTANT

September 2015 – June 2019 | Stanford, CA

Managed 24-7, FCC-licensed FM radio station with 100+ person staff. Taught Stanford EDUC15SC: Remix | Reading and Writing DJ Culture. Support student artists in creating shows and sharing art. Advocated for students with disabilities by designing novel disability-accessible studio. Taught 5-week, 40 student, government mandated FCC radio training. Ran multiple podcasts on health, science, and culture.

ACCOMPLISHMENTS

MANUSCRIPTS | ACADEMIC JOURNALS

As of May 2022

Jaggi, et al. Heart and Brain Structure Mediate the Association between Cardiovascular Risk and Cognitive Function in the UK Biobank. In Preparation for European Heart Journal (2022).

Jasbi, **Jaggi**, Frank. "Learning Linguistic Disjunction." In Review at Journal of Child Language (2022).

Jaggi, et. al. "Quantitative Image Features from Radiomic Biopsy Differentiate Oncocytoma from Chromophobe Renal Cell Carcinoma" Journal Medical Imaging (2021). <https://doi.org/10.1117/1.JMI.8.5.054501>

Raisi-Estabragh, et al., "Associations of Meat and Fish Consumption With Conventional and Radiomics Cardiovascular Magnetic Resonance Phenotypes in the UK Biobank" Front. Cardiovasc. Med., (2021). <https://doi.org/10.3389/fcvm.2021.667849>

Raisi-Estabragh, et al., "Repeatability of Cardiac Magnetic Resonance Radiomics: A Multicentre Multi-Vendor Test-Retest Study" Front. Cardiovasc. Med., (2020): <https://doi.org/10.3389/fcvm.2020.586236>

Jaggi et al. "Stanford DRO Toolkit: Digital Reference Objects for Standardization of Radiomic Features." Tomography vol. 6,2 (2020): 111-117. doi:10.18383/j.tom.2019.00030

McNitt-Gray, Napel, **Jaggi** et al. "Standardization in Quantitative Imaging: A Multicenter Comparison of Radiomic Features from Different Software Packages on Digital Reference Objects and Patient Data Sets." Tomography vol. 6,2 (2020): 118-128. doi:10.18383/j.tom.2019.00031

Raisi-Estabragh, et al., "Cardiac magnetic resonance radiomics: basic principles and clinical perspectives," European Heart Journal - Cardiovascular Imaging, vol. 21, 4, (2020): 349–356. <https://doi.org/10.1093/ehjci/jeaa028>

PRESENTATIONS | ACADEMIC TALKS OR CONFERENCES

As of May 2022

Abdo, et. al. "Multi-modal brain age estimation: a comparative study confirms the importance of microstructure" MICCAI International Workshop on Computational Diffusion MRI (CDMRI) 2020.

Raisi-Estabragh, **Jaggi**, et. al. "Variation of cardiac magnetic resonance radiomics features by age and sex in healthy participants from the UK Biobank" European Society of Cardiology (ESC) 2020.

McNitt-Gray, Napel, Kalpathy-Cramer, **Jaggi**, et. al. "Standardization in Quantitative Imaging: A Multi-center Comparison of Radiomics Feature Values Obtained by Different Software Packages on Digital Reference Objects and Patient Datasets" Radiology Society of North America (RSNA) 2019.

McNitt-Gray, Napel, Kalpathy-Cramer, **Jaggi**, et. al. "Standardization in Quantitative Imaging: A Comparison of Radiomics Feature Values Obtained by Different Software Packages On a Set of Digital Reference Objects" American Association of Physicists in Medicine (AAPM) 2019.

Djurisic, **Jaggi**, Shatz. "Preservation of E-I balance despite enhanced OD plasticity and spine density in hippocampus and cortex of PirB-/-" Society for Neuroscience (SfN) 2019.

Jasbi, **Jaggi**, Frank. "Conceptual and prosodic cues can help children learn the meaning of disjunction." Cognitive Science (CogSci) 2018.

Jasbi, **Jaggi**, Frank. "The Acquisition of Disjunction from Child Directed Speech." Linguistic Society of America (LSA) 2018.

AWARDS | ACADEMIC PRIZES AND GRANTS

As of May 2022

Harvard-MIT MSTP grant | June 2021

Angela Lee Undergraduate Research Award | June 2019

Biology Honors with Distinction | June 2019

Phi Beta Kappa | June 2019

The Stanford Alumni Association Award of Excellence | May 2019

Fulbright Scholarship | March 2019

Stanford Undergraduate Academic Research Grant Recipient | May 2018

Stanford Bio-X USRP Summer Fellow | January 2017

MD Anderson CPRIT-CURE Summer Grant | April 2016