Kevin Juneos Mei Le

SUMMARY

Computational neuroscience PhD Candidate modeling human brain and cognitive functions using vision and language models.

CONTACT

Mail: kvnjmle@gmail.com   **Web:** kvnjmle.com

EDUCATION

California Institute of Technology   2019 – Present
Ph.D. in Computation and Neural Systems

Amherst College   2012 – 2016
B.A. in English, Neuroscience

Stuyvesant High School   2008 – 2012

RESEARCH

Ueli Rutishauser, Cedars-Sinai Medical Center   2020 – Present
Graduate Student
Human neurophysiology, learning and memory.

Pietro Perona, California Institute of Technology   2020 – Present
Graduate Student
Human and computer vision.

Michael E. Greenberg, Harvard Medical School   2014, 2015, 2017 – 2019
Research Assistant
Human brain development and evolution.

PROJECTS

Semantic Representation in Human Brain
Modeling how meaning is represented in neural activity and how information is transformed from audiovisual stimuli to semantic representations in the brain using large language and vision models, decoding and encoding models, and explainable AI methods.

SKILLS

Programming Languages: Python, MATLAB, R, Bash
Web Development: HTML, CSS
Formatting: LaTeX
Data Science: machine learning, computer vision, deep learning
Computational Biology: computational neuroscience, bioinformatics

PUBLICATIONS

Multimodal brain responses during movie watching: single-neuron, intracranial EEG, and fMRI in human patients *Scientific Data* (2024)
Umit Keles, Julien Dubois, KEVIN J. M. LE, J. Michael Tyszka, David A. Kahn, Chrystal M. Reed, Jeffrey M. Chung, Adam N. Mamelak, Ralph Adolphs, Ueli Rutishauser

Activity-induced MeCP2 phosphorylation regulates postnatal gene expression and retinogeniculate synapse refinement *PNAS* (2023)

Christopher P. Tzeng*, Tess Whitwam*, Lisa D. Boxer*, Emmy Li, Andrew Silberfeld, Sara Trowbridge, **KEVIN MEI**, Cindy Lin, Rebecca Shamah, Eric C. Griffith, William Renthal, Chinfei Chen, Michael E. Greenberg

Activity-dependent regulome of human GABAergic neurons reveals new patterns of gene regulation and neurological disease heritability *Nature Neuroscience* (2021)

Gabriella L. Boulting*, Ershela Duressi*, Bulent Ataman*, Maxwell A. Sherman*, **KEVIN MEI**, David A. Harmin, Ava C. Carter, Daniel R. Hochbaum, Adam J. Granger, Jesse M. Engreitz, Sinisa Hrvatin, Michael R. Blanchard, Marty G. Yang, Eric C. Griffith, Michael E. Greenberg

Nibbling 405 kb off the X: Viable deletion alleles eliminating 50 protein coding genes, including a chromatin factor involved in neuronal development *microPublication Biology* (2019)

Gregory Minevich, Alex Bernstein, **KEVIN MEI**, Richard J. Poole, Oliver Hobert

Evolution of Osteocrin as an activity-regulated factor in the primate brain *Nature* (2016)

Bulent Ataman*, Gabriella L. Boulting*, David A. Harmin, Marty G. Yang, Mollie Baker-Salisbury, Ee-Lynn Yap, Athar N. Malik, **KEVIN MEI**, Alex A. Rubin, Ivo Spiegel, Ershela Durresi, Nikhil Sharma, Linda S. Hu, Mihovil Pletikos, Eric C. Griffith, Jennifer N. Partlow, Christine R. Stevens, Mazhar Adli, Maria Chahrour, Nenad Sestan, Christopher A. Walsh, Vladiimr K. Berezovskii, Margaret S. Livingstone, Michael E. Greenberg

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TEACHING

Human Memory (Bi 23), California Institute of Technology   Winter 2024
Instructor

Projects in Machine Learning (CS 101), California Institute of Technology   Fall 2023
Teaching Assistant for Katie Bouman

Data Analysis in Biology (BE/Bi 103a), California Institute of Technology   Fall 2023
Teaching Assistant for Justin Bois

Computational Vision (EE/CNS/CS 148), California Institute of Technology   Spring 2022
Teaching Assistant for Pietro Perona

Neuroscience of Narrative (Bi 23), California Institute of Technology   Winter 2022
Instructor

Molecular Genetics (BIOL 251), Amherst College   Fall 2015
Teaching Assistant for Yan Qi

POSTERS

Society for Neuroscience Conference   2023
"Neurons in human medial temporal lobe encode semantic features of movies"

Harvard Medical School Department of Neurobiology Retreat   2019
"Evolved human neuronal activity-responsive genes and regulatory elements"