

DanbeeKim

Field Neuroscientist | Teacher | Author

CONTACT

danbee@alum.mit.edu
www.danbeekim.org

LANGUAGES

English (fluent),
Korean (intermediate),
Portuguese (beginner)

COMPUTER SKILLS

Microsoft Office Suite,
Illustrator, Photoshop,
Premier Pro, Bonsai-Rx,
Github, L^AT_EX, Python

FABRICATION TOOLS

Epilog Helix Laser
Cutter, sewing
machine (standard
and overlocking)

MOVEMENT ARTS

capoeira, fire spinning,
musical theater

INSTRUMENTS

bass guitar, ukelele,
violin, vocals

REFERENCES

available upon request

MISSION

To create interactive, empathic experiences that empower the study of nervous systems in natural settings.

EDUCATION

2013-2020 **DOCTOR OF PHILOSOPHY IN NEUROSCIENCE** Chantalimaud Centre for the Unknown
International Neuroscience Doctoral Programme, Intelligent Systems Lab
Thesis title: *On the aims and methods of Field Neuroscience: Non-invasive techniques for studying nervous systems in natural settings*

2005-2009 **SCIENTÆBACCULAUREUS** Massachusetts Institute of Technology
Brain and Cognitive Sciences

EXPERIENCE

since 2021 **NEUROGEARS, LTD** London, UK
Research Scientist, Outreach

since 2021 **THE BARTLETT SCHOOL OF ARCHITECTURE, UCL** London, UK
Tutor, MArch Design for Performance and Interaction

since 2021 **TERRASCOPE, MIT** Cambridge, Massachusetts, USA
Alumni Mentor

since 2010 **APPALACHIAN INSTITUTE FOR CREATIVE LEARNING** Mars Hill, North Carolina, USA
Teacher, Staff

PUBLICATIONS AND EXHIBITS

Danbee Kim, Kendra Buresch, Roger Hanlon, Adam R. Kampff. "An experimental method for evoking and characterizing dynamic color patterning of cuttlefish during prey capture". *In prep.*

Danbee Kim. *The First VIRS*. London; 2020.

Danbee Kim, Adam R. Kampff. "Neuroscience Does Design: What the Brain's Architecture Can Teach Architects". *Architectural Design*, 90.6 (2020): 94-99. DOI: 10.1002/ad.2637.

André Marques-Smith, Joana P. Neto, Gonçalo Lopes, Joana Nogueira, Lorenza Calcaterra, João Frazão, Danbee Kim, Matthew G. Phillips, George Dimitriadis, Adam R. Kampff. "Recording from the same neuron with high-density CMOS probes and patch-clamp: a ground-truth dataset and an experiment in collaboration". *Bioarxiv*, 2018. DOI: 10.1101/370080.

Danbee Kim. "Why I refuse to do animal testing in my science career". *Massive Science*. June 18, 2018.

Darío R. Quiñones, Gonçalo Lopes, Danbee Kim, Cédric Honnet, David Moratal, Adam Kampff. "HIVE Tracker: a tiny, low-cost, and scalable device for sub-millimetric 3D positioning". *Augmented Human*, 9 (2018). DOI: 10.1145/3174910.3174935.

Gonçalo Lopes, Danbee Kim. "How theater, start-up culture, and business history helped us become better neuroscientists". *Massive Science*. Oct 16, 2017.

Danbee Kim, Gonçalo Lopes. "Does modern neuroscience really help us understand behavior?" *Massive Science*. Oct 3, 2017.

Surprising Minds. Interactive installation and crowd human behaviour experiment. Installed 4 July 2017 at Sea Life Brighton, Brighton, UK. Danbee Kim, Kerry Perkins, Clive Ramble, Hazel Garnade, Gonçalo Lopes, Darío R. Quiñones, Reanna Campbell-Russo, Robb Barrett, Martyn Stopps, The EveryMind Team, Adam Kampff.

EXPERIENCE CONTINUED...

2016-2019 **SAINSBURY WELLCOME CENTRE FOR NEURAL CIRCUITS AND BEHAVIOUR**

London, UK

Visiting Researcher, Intelligent Systems Lab

AWARDS:

- SWC Public Engagement Fund: £3,000 (Feb 2019)
- UCL Train and Engage program: £1,000 (July 2018)

EVENTS:

- "Dear Neuroscience: Touch and Proprioception", Organizer and Speaker (24 May 2019)
- 2017 Systems Seminars Annual Symposium: Cross-Species Conversations, Organizing team (21 Sept 2018)
- "Orchestrating the Brain: A collaborative workshop of musicians and neuroscientists", Organizer and Speaker (31 May 2018)

SOCIETIES AND WORKING GROUPS:

- SWC-Gatsby PhD Society, Social Chair (May 2018 – May 2019)
- SWC Staff Student Consultative Committee, Student representative (Oct 2017 – Oct 2018)
- SWC NC3Rs working group, Member (July 2017 – July 2019)
- SWC Public Engagement Network, Member (Jan 2016 – July 2019)

2005-2019 **MIT MUSICAL THEATER GUILD**

Cambridge, Massachusetts, USA

Member

- Corresponding Secretary (2013-2019)
- Costume Shop Manager (2007-2009)

SHOWS:

9 to 5, 2016: vocal director

Spring Awakening, 2015: pit orchestra (violin and guitar)

Legally Blonde, 2014: co-choreographer

Sweeney Todd, 2014: vocal director, pit orchestra (violin)

Reefer Madness, 2012: choreographer

Urinetown, 2012: Ma Strong, ensemble

Hack, Punt, Tool, 2012: co-writer, choreographer

Children of Eden, 2011: vocal director, Snake

Assassins, 2011: Charles Guiteau, co-props

25th Annual Putnam County Spelling Bee, 2011: vocal director, pit orchestra (violin)

Jekyll and Hyde, 2011: co-director, choreographer

Evil Dead, 2010: Annie, master seamstress

Little Shop of Horrors, 2010: assistant choreographer

Side Show, 2009: choreographer

Bare, 2009: Kyra; program designer, master seamstress

The Mystery of Edwin Drood, 2009: Angela Prysock/Princess Puffer; costume designer

Wild Party, 2008: Kate

Pippin, 2007: Bertha, Manson Trio; co-costume designer

Cabaret, 2007: costume designer

Reefer Madness, 2007: Mae; props designer

Children of Eden, 2006: Eve; costume designer

Crazy For You, 2006: Everett Baker

Chicago, 2006: director

Urinetown, 2006: Hot Blades Harry

Star Wars: The Musical, 2005: Bail Organa, Lobot, ensemble

2011-2013 **HACK, PUNT, TOOL**

Cambridge, Massachusetts, USA

Co-writer

- Co-wrote script and contributed to music to create an original show about hacking culture and life at MIT
- Collaborated with MIT administration, teachers, and students to create a work that has a significant positive impact on the MIT community
- Produced by the MIT Musical Theater Guild during IAP 2012
- Writing and music teams recorded and mastered an original cast recording, released in Sept 2012
- Released a subtitled video recording of the MIT production on YouTube in Sept 2013

EXPERIENCE CONTINUED...

- 2011-2012 **MUSEUM OF SCIENCE** Boston, Massachusetts, USA
Education Associate, Current Science & Technology
- developed, and performed 20-minute presentations on science and technology topics
 - contacted and coordinated guest presenters
 - organized logistics for Museum events
- 2009-2011 **HARVARD MEDICAL SCHOOL, BETH ISRAEL DEACONESS MEDICAL CENTER** Boston, Massachusetts, USA
EEG Lab Technician, Research Assistant
- organized and managed EEG lab, Psychiatry Suite of BIDMC West Campus
 - designed and implemented EEG protocols written in Superlab and Presentation software
 - manage subject recruitment, coordination with clinical assessments, and payment
- 2009-2010 **ROFLCon** Boston, Massachusetts, USA
Staff
- coordinated guest travel/lodging and event volunteers
 - organized event AV logistics
- 2008-2009 **DEPARTMENT OF BRAIN AND COGNITIVE SCIENCES, MIT** Cambridge, Massachusetts, USA
Undergraduate Researcher
- HOW EXPECTATIONS CAN CHANGE PERCEPTION**
Higher-Level Cognition Lab: Talia Konkle, Steven Piantadosi, Rebecca Saxe
- studied the effect of prior expectations on the perception of incongruent stimuli
 - designed and coded experimental tasks in Matlab; analyzed data in R
- OBSERVING CAUSAL LAWS BY TRACKING EYE MOVEMENTS**
Early Childhood Cognition Lab: Elizabeth Bonawitz, Laura Schulz
- studied how young children learn to make predictions based on patterns
 - tracked eye movements using Tobii Eyetracker software; analyzed data using Matlab
 - studies were conducted at the Learning Lab at the Children's Museum of Boston
- 2005-2008 **FRESHMEN PRE-ORIENTATION PROGRAMS, MIT** Cambridge, Massachusetts, USA
Film Counselor for Freshmen Arts Pre-Orientation (FAP)
- participated in FAP 2005; film counselor for FAP 2006, 2007, and 2008
 - organized projects and activities for the week-long program
 - co-wrote, filmed, and edited counselor introduction videos and a yearly FAP video
- 2006-2008 **SENIOR HAUS ANNUAL STEER ROAST** Cambridge, Massachusetts, USA
Food Veep
- organized an outdoor feast for approximately 400 people
 - worked with fellow veeps and MIT staff on event registration, logistics, funding, and safety
 - coordinated shopping trips and the borrowed use of an industrial kitchen
 - trained an apprentice and contributed to a Food Veep Bible
- 2005-2008 **TERRASCOPE, MIT** Cambridge, Massachusetts, USA
Undergraduate Teaching Fellow, Kitchen and Snacks Coordinator
- Terrascope is a year-long freshmen seminar that examines complex real-world problems, presents potential solutions to a visiting board of experts at the end of fall term, then creates a museum exhibit during spring term.
- participated as a freshman in Mission 2009: The Tsunami Threat to the Pacific
 - mentored as an Undergraduate Teaching Fellow in Mission 2011: Saving the Oceans
 - worked within a budget to stock and maintain the Terrascope kitchen
- 2007 **EDGERTON CENTER OUTREACH PROGRAM, MIT** Cambridge, Massachusetts, USA
Teaching Assistant
- taught grade-school children topics in science and technology via hands-on classroom projects, including motorized Lego cars, rudimentary circuits, high speed photography, and basic chemistry