

# DanbeeKim

Vigilante Intergalactic Roustabout Scholar

## CONTACT

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

## LANGUAGES

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

## COMPUTER SKILLS

Arduino, Bonsai, Excel,  
Github, Illustrator,  
L<sup>A</sup>T<sub>E</sub>X, Photoshop,  
Premier Pro, Python,  
SketchUp

## FABRICATION TOOLS

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

## MOVEMENT ARTS

capoeira, fire spinning,  
musical theater

## INSTRUMENTS

bass guitar, djembe,  
violin, vocals

## REFERENCES

available upon request

## EDUCATION

- 2013-2020 **DOCTOR OF PHILOSOPHY IN NEUROSCIENCE** Champalimaud Centre for the Unknown  
*International Neuroscience Doctoral Programme*  
Thesis advisor: Adam Kampff, Intelligent Systems Lab  
Thesis title: *On the aims and methods of Field Neuroscience: Non-invasive techniques for studying nervous systems in natural settings*  
Online open lab notebook: [www.danbeekim.org/open-lab-notebook/](http://www.danbeekim.org/open-lab-notebook/)
- 2005-2009 **SCIENTÆBACCULAUREUS** Massachusetts Institute of Technology  
*Brain and Cognitive Sciences*

## 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, 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.

Dario 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, Dario R. Quiñones, Reanna Campbell-Russo, Robb Barrett, Martyn Stopps, The EveryMind Team, Adam Kampff.

## EXPERIENCE

- since 2017 **MASSIVE SCIENCE CONSORTIUM** massivesci.com  
*Writer*
- since 2010 **APPALACHIAN INSTITUTE FOR CREATIVE LEARNING** Mars Hill, North Carolina, USA  
*Teacher, Staff*
- 2013-2020 **CHAMPALIMAUD CENTRE FOR THE UNKNOWN** Lisboa, Portugal  
*PhD Candidate and Researcher, Intelligent Systems Lab*
- 2016-2019 **SAINSBURY WELLCOME CENTRE FOR NEURAL CIRCUITS AND BEHAVIOUR** London, UK  
*Visiting Researcher, Intelligent Systems Lab*

## EXPERIENCE CONTINUED...

- since 2005 **MIT MUSICAL THEATER GUILD** MIT, Cambridge, Massachusetts  
*Member*
- Corresponding Secretary (since 2013)
  - 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  
*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
- 2011-2012 **MUSEUM OF SCIENCE** Boston, Massachusetts  
*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  
*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

## EXPERIENCE CONTINUED...

- 2009-2010 **ROFLCon** Boston, Massachusetts  
*Staff*
- coordinated guest travel/lodging and event volunteers
  - organized event AV logistics
- 2008-2009 **DEPARTMENT OF BRAIN AND COGNITIVE SCIENCES** MIT, Cambridge, Massachusetts  
*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  
*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** MIT, Cambridge, Massachusetts  
*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  
*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  
*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