

## Creative scientist, founder of science communication program

- Developed 12 workshops in science communication, teaching over 500 faculty and graduate students
- Recognized by NSF-funded program as one of the top 30 innovators in science communication nationwide
- In research, created interdisciplinary tools to expose animals to altered gravity, compress with microfluidics, align with 3D-printing, and machine learning image analysis, leading to three first-author papers in prep

## Work Experience

### Public Communication for Researchers

2012 - 2017

### Co-founder, Lead Writer & Designer

- Developed 12 workshops in a curriculum on science communication
- Taught faculty in Computer Science, 500 students across all STEM departments
- Developed five-year strategic plan, advertising campaigns, graphics, website, blog
- Contributing author to national recommendations on STEM education
- Worked closely in a team to organize events, manage \$10,000 annual budget
- Recognized by Graduate Student Service Award 2015, profiled by NSF

### Rorus, Inc.

2014 - 2015

### Co-founder, Chief Technology Officer

- Built a chemistry lab, synthesized nanoparticles for a new water purification technology
- Directed communications for successful grants, presentations for investors, technical white papers, scripts for videos, startup contests
- Startup accelerator training in AlphaLab Gear, Pittsburgh, and Founder.org, Stockholm

## Education

### Carnegie Mellon University

2018

Ph.D. in Biology expected September 2018

National Science Foundation Graduate Research Fellow

Certificate in Teaching Excellence

### Oberlin College

2009

B.A. in Neuroscience with Chemistry Minor

B.A. in Music Theory with Honors Thesis

## Research Summary

Life on Earth evolved under the influence of gravity. After gravity deprivation, astronauts come back with health problems that resemble premature aging. It's still unclear how living things sense gravity, in part because experiments focus on only a few animals at a time. So I lead an interdisciplinary team to develop new devices that can deliver mechanical force to hundreds of fruit flies, and software tools to analyze the results. By learning how living things sense mechanical force, we can develop new treatments for mechanical dysfunctions, such as age-related diseases and space travel.

## Workshops Developed in Science Communication

Presentation skills	Telling science stories	Crafting metaphorical explanations
Scientific graphic design	Distilling your message	Why are facts not enough?
Vocal delivery	Talking to the media	Motivated reasoning and cultural cognition
Getting jobs outside academia	Theater techniques	Intro to strategic frame analysis

## Presentations

<u>Faculty Media Training</u>	Carnegie Mellon University School of Computer Science
2D Story Analysis	Stanford University Human-Computer Interaction, San Francisco, CA
<u>Finding your Expert Blindspot</u>	Harvard University Strategic Data Project, Boston, MA
Explaining Complexity	GSL Labs, San Francisco, CA
Clear Thinking Made Visible	AAAS Conference 2015, San Jose, CA
Telling Research Stories	Webinar, Texas A&M University
Science Communication	Keynote speaker, Indiana University Science Communication Symposium 2018
Why are Facts not Enough?	Speaker, Institute for Religion in the Age of Science, Star Island, NH
<u>"Oh, I get it"</u>	Panelist, SXSW edu 2017, Austin, TX
<u>The Protein Hustle</u>	Director, Dance Your Ph.D.
<u>Understanding Music</u>	TEDxCMU, Pittsburgh, PA

## Writing in Science Communication

<u>Editorial Consultant</u>	Grant & Jay 2017. <i>Breaking Through Gridlock</i> . Berrett-Koehler Publishers
<u>Contributor</u>	<i>GradSciComm: Integrating Science Communication into STEM Graduate Education</i>
<u>Author</u>	<i>A 5-Year Plan to Build a Science Communication Center</i>
<u>Author</u>	Op-ed: <i>Grad School is Hard on Mental Health</i> . Chronicle of Higher Education
<u>Author</u>	Blog post: <i>A Biologist's Prayer</i> at ScienceNonFiction.org

## Honors and Awards

Graduate Research Fellow, National Science Foundation  
First place, McGinnis Venture Competition for Pittsburgh Startups  
TEDx talk named editor's choice translated into 9 languages, over 130,000 views

## Skills

Presentation Keynote	Statistics GraphPad, Mathematica	Graphic design Affinity Designer, Pages	Programming Java, LaTeX, ImageJ
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