

# Graduate Student Highlights

January 2021 – March 2021

## Graduate School News

### 3MT: Skills Valuable Beyond Degree Conferral



Communicating research to those in the same field might be easy, but stripping away the jargon for a general audience is another story. Jason Guss, Ph.D. '18, Derek Holyoak, Ph.D. '18, Carol-Rose Little, Ph.D. '20, and William Pennock, Ph.D. '19 reflect on their participation in the Three Minute Thesis (3MT) competition and how they benefit from the communication skills they honed in their new positions.

[Read the full story](#)

### Students' Vaccine Videos go Viral



Biomedical and biological sciences doctoral candidate Rob Swanda immediately understood how mRNA COVID-19 vaccines work. To help explain the technology to non-scientists, he and other graduate students in STEM fields began making explanatory videos in English with Spanish translations to make the science more accessible to broad audiences.

[Read the full story](#)

### Students, Alumni Celebrate Black Graduate Excellence



“Celebrating Black Graduate Excellence at Cornell,” a two-day series of alumni-filled panels, honored the contributions of Black graduate students, the Black Graduate and Professional Student Association (BGPSA), and its members – including the Renaissance Ball they founded. Alumni discussed the BGPSA’s history and legacy as well as the Black graduate student experience at Cornell.

[Read the full story](#)

## Nearly 1,000 Gather for Conversation on Safer Fieldwork



Witnessing incidents of violence against people of color in the media, ecology and evolutionary biology doctoral students Monique Pipkin and Amelia-Juliette Demery decided to create a set of best practices on how researchers can stay safe while conducting fieldwork. What started as a list transformed into a paper, which led to an event that brought nearly 1,000 scholars into the conversation.

[Read the full story](#)

## Biochemistry, Molecular and Cell Biology Ph.D. Candidate Wins Three Minute Thesis Competition



Biochemistry, molecular and cell biology doctoral candidate Bhargav Sanketi won Cornell's 2021 Three Minute Thesis (3MT) competition with his presentation, "To be or 'knot' to be: Blueprint for a small intestine'." 3MT challenges graduate students to present their thesis research compellingly to general audiences in just three minutes with the aid of one static slide.

[Read the full story](#)

## 'Lights Along the Path': Bouchet Alumni Give Back



Excellence in character, leadership, advocacy, scholarship, and service are prerequisites for induction into the Edward A. Bouchet Graduate Honor Society, but Bouchet Scholars at Cornell demonstrate these traits well beyond graduation. Many Bouchet alumni remain committed to the society and give back by acting as mentors for current students.

[Read the full story](#)

# Graduate Student Spotlights

## **Jason Chang** | *Biomedical Engineering*



Biomedical engineering doctoral candidate Jason Chang's research aims to understand the biological mechanisms underlying mammalian tendon regeneration. Through his research, he hopes to enable the development of more effective therapeutics to promote scarless tendon healing. The pandemic caused an interruption in his work, but he quickly pivoted to continue making progress.

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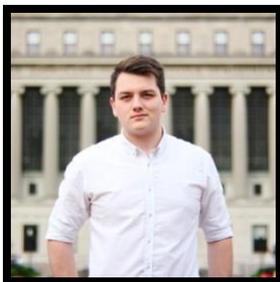
## **David Dunham** | *Germanic Studies*



David Dunham, a doctoral student in Germanic studies, examines the case report genre in the eighteenth century with a focus on the impact of small-form writings on the emergence of literary cases. Today's culture consumes small forms of writing through social media, leading to present-day implications for studying literary precedents. Outside of research, Dunham serves as a leader in student governance.

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## **Nikola Danev** | *Genetics, Genomics, and Development*



Genetics, genomics, and development doctoral student Nikola Danev studies cell signaling and development. Questions about how stem cells know to differentiate or neurons to branch out drive his fascination and could transform into research with potential medical applications for cancer metastasis or neurodegenerative diseases. Danev also amplifies peer voices through student governance.

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## Yiqing Hua | *Computer Science*



Yiqing Hua, a doctoral candidate in computer science, is interested in measuring and mitigating threats on social media, including online harassment and disinformation. Through this research, she aims to provide insights into events that could potentially lead to severe consequences. Studying at Cornell Tech allows her interdisciplinary research to extend to partnerships with nearby organizations.

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## Angela Zhou | *Operations Research and Information Engineering*



Operations research and information engineering doctoral candidate Angela Zhou develops credible data-driven decision-making to improve societal and beneficial impacts of data-driven decisions in important areas. Her research, carried out at Cornell Tech, empowers analysts to report machine learning decisions violations to inform the safe use of prescriptive analytics.

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## Juliana González-Tobón | *Plant Pathology and Plant-Microbe Biology*



Juliana González-Tobón, a doctoral student in plant pathology and plant-microbe biology, studies how plants get sick and the viruses, bacteria, fungi, and other microorganisms that cause infection. By understanding plant-pathogen interactions, her research will contribute to finding easier solutions in the field to stop plant infections before they begin.

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## Dan Adler | *Information Science*



Information science doctoral student Dan Adler creates novel technologies that improve mental and behavioral health outcomes, including those that remotely monitor mental illness as well as those designed as interventions. By collaborating with psychologists, psychiatrists, and industry experts, Adler’s research works to close the gap between research and practice to improve health outcomes.

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## Monique Pipkin | *Ecology and Evolutionary Biology*



Monique Pipkin, a doctoral student in ecology and evolutionary biology, researches the physiological drivers and behavioral outcomes of feather coloration in birds as well as how stressful events one year can affect traits in later years. Alongside a peer, Pipkin co-authored a paper on safer fieldwork and practices supervisors, departments, and institutions can take to keep researchers safe.

[Graduate School spotlight](#)

## Additional Graduate Students of Note

Student, Field	Achievement/Story Feature
<b>Jordan Rede</b> , microbiology	Microbiology doctoral student Jordan Rede contributed to research finding that victims of sea star wasting disease are “drowning” in their own environment. <a href="#">Learn more...</a>
<b>Rey Cotto</b> , entomology	Entomology graduate student Rey Cotto speaks about the importance of diversity at Cornell AgriTech. <a href="#">Learn more...</a>
<b>Ronald Heisser</b> , theoretical and applied mechanics	Doctoral student Ronald Heisser’s research seeks to model car chassis designs off of the way bones, muscles, and tendons work. <a href="#">Learn more...</a>
<b>James Satterlee</b> , plant biology	Graduate student James Satterlee is part of a team that found new insights into the

	patterns of gene expression in maize stem cells. <a href="#">Learn more...</a>
<b>Kara Andres</b> , ecology and evolutionary biology	Graduate student Kara Andres is first author of a paper on a new technique in which DNA is analyzed from water samples to gather information about invasive fish. <a href="#">Learn more...</a>
<b>Ross Jennings</b> , physics	Doctoral candidate Ross Jennings worked on a project finding possible hints of gravitational waves from merging black holes in distant galaxies. <a href="#">Learn more...</a>
<b>Maurice Jakesch</b> and <b>Anna Evtushenko</b> , information science	Cornell Tech doctoral student Maurice Jakesch is first author of a paper on how people factor large group opinions into their evaluation of news, to which doctoral student Anna Evtushenko contributed as a co-author. <a href="#">Learn more...</a>
<b>Lynda Xepoleas</b> , apparel design, and <b>Emily Hayflick</b> , anthropology	Graduate students Lynda Xepoleas and Emily Hayflick researched ethnological dress collections through the Library's Division of Rare and Manuscript Collections, which informed their online exhibit. <a href="#">Learn more...</a>
<b>Julius Judd</b> , biochemistry, molecular and cell biology	Graduate student Julius Judd is first author of a paper on the ways proteins unspool DNA so that cells can take on unique properties. <a href="#">Learn more...</a>
<b>Austin Reid</b> , public administration	Graduate student Austin Reid's history of the Chillicothe Jewish community will be included in the archives of the Western Reserve Historical Society in Cleveland. <a href="#">Learn more...</a>
<b>Shijin Rajakrishnan</b> , computer science, and <b>Connor Lawless</b> , <b>Matthew Zalesak</b> , <b>Billy Jin</b> , <b>Varun Suriyanarayana</b> , <b>Sotiris Ntanavaras</b> , <b>Sander Aarts</b> , and <b>Sam Gutekunst</b> , operations research and information engineering	Doctoral students Connor Lawless, Shijin Rajakrishnan, Matthew Zalesak, Billy Jin, Varun Suriyanarayana, Sotiris Ntanavaras, Sander Aarts, and Sam Gutekunst contributed to planning that allowed Cornell to open to students in-person for Fall 2020. <a href="#">Learn more...</a>
<b>Alex Cheng</b> , biomedical engineering	Doctoral student Alex Cheng is co-lead author of a paper on a noninvasive blood test that uses cell-free DNA to determine organ injury from COVID-19. <a href="#">Learn more...</a>

<b>Fred Jia</b> , mechanical engineering	Doctoral student Fred Jia ran simulations for a helmet designed to protect dentists and doctors from COVID-19. <a href="#">Learn more...</a>
<b>Rob Swanda</b> , biomedical and biological sciences, <b>Irma Fernandez</b> , biochemistry, molecular, and cell biology, and <b>Juliana González-Tobón</b> , plant pathology and plant-microbe biology	Doctoral candidates Rob Swanda and Irma Fernandez and doctoral student Juliana González-Tobón are creating videos in multiple languages to educate the general public about mRNA COVID-19 vaccines. <a href="#">Learn more...</a>
<b>Drea Darby</b> , entomology, and <b>Amelia-Juliette Demery</b> , ecology and evolutionary biology	Graduate students Drea Darby and Amelia-Juliette Demery assisted a professor in creating a course that examines the breadth and depth of bias and exclusion in STEM. <a href="#">Learn more...</a>
<b>Thapakorn Jaroentomeechai</b> and <b>Tyler Moeller</b> , chemical engineering	Doctoral candidate Thapakorn Jaroentomeechai is a co-lead author of a paper on cell-free biotechnology that enables shelf-stable vaccines, to which doctoral candidate Tyler Moeller contributed as a co-author. <a href="#">Learn more...</a>
<b>Jenny Leigh Du Puis</b> , fiber science and apparel design, and <b>Hedan Bai '16</b> , mechanical engineering	Doctoral candidates Jenny Leigh Du Puis and Hedan Bai contributed to designing a garment that won the NFL innovation competition. <a href="#">Learn more...</a>
<b>Megan Barrington</b> , geological sciences, and <b>Christian Tate</b> , astronomy and space sciences	Doctoral students Megan Barrington and Christian Tate are part of the team working on Mastcam-Z, the Perseverance rover's zoomable, mast-mounted camera system. <a href="#">Learn more...</a>
<b>Zachariah Berry</b> , M.S. '20, industrial and labor relations	Industrial and labor relations doctoral student Zachariah Berry, M.S. '20, is a co-author on a paper finding that when employers in male-dominated industries expand their job candidate short lists, more women are considered. <a href="#">Learn more...</a>
<b>Darin Self</b> , government	Graduate student Darin Self weighed in on Biden's reaction to Myanmar's military response to the coup. <a href="#">Learn more...</a>
<b>Natalie Hofmeister</b> , ecology and evolutionary biology	Doctoral student Natalie Hofmeister is first author of a paper on the European Starling's success in North America. <a href="#">Learn more...</a>
<b>Katerina Faust</b> and <b>Mary R. Elson</b> , psychology	Doctoral students Katerina Faust and Mary R. Elson contributed to research finding that

	prolonged immaturity is an evolutionary plus for human babies. <a href="#">Learn more...</a>
<b>Yuhan Hu</b> , mechanical engineering	Doctoral student Yuhan Hu is lead author of a paper on the creation of soft robots that use camera and shadows to sense human touch. <a href="#">Learn more...</a>
<b>Shuyang Si</b> , applied economics and management	Doctoral candidate Shuyang Si is lead author of a paper finding that environmental policies are not always bad for business. <a href="#">Learn more...</a>
<b>Phillip Dang</b> , applied physics	Doctoral candidate Phillip Dang is a senior author on a paper about a material structure that simultaneously exhibits superconductivity and the quantum Hall effect. <a href="#">Learn more...</a>
<b>Nathan Eylands</b> , horticulture	Graduate student Nathan Eylands is consulting on a project in which inventors plan to grow crops under glass to mitigate flood and hail storm damage. <a href="#">Learn more...</a>
<b>Hedan Bai</b> and <b>Jane Shin</b> , mechanical engineering	Graduate students Hedan Bai and Jane Shin discuss their experiences in Cornell Engineering's Ph.D. Commercialization Fellowship program. <a href="#">Learn more...</a>
<b>Morgan Irons</b> , soil and crop sciences	Doctoral student Morgan Irons is conducting an experiment on soil health in space. <a href="#">Learn more...</a>
<b>Laura Carver</b> , M.S. '20, industrial and labor relations	Doctoral student Laura Carver is co-author on a paper that finds European unions respond to worker insecurity in different ways. <a href="#">Learn more...</a>
<b>Monique Pipkin</b> and <b>Amelia-Juliette Demery</b> , ecology and evolutionary biology	Ecology and evolutionary biology doctoral candidates Monique Pipkin and Amelia-Juliette Demery organized a paper presentation and expert-led panel discussion on safer fieldwork strategies that brought nearly 1,000 scholars from across the country into the conversation. <a href="#">Learn more...</a>
<b>Emily Baker</b> and <b>Emily Hillenbrand</b> , development sociology	Doctoral students Emily Baker and Emily Hillenbrand have received funding from the Cornell Atkinson Center for Sustainability for research focused on increasing food security. <a href="#">Learn more...</a>

<b>Moshood Bakare</b> , plant breeding	Plant breeding doctoral student Moshood Bakare has been awarded the Africa Fund Fellowship from Cornell University. <a href="#">Learn more...</a>
<b>Adnan Shami Shah</b> and <b>Xiaofu Cao</b> , chemistry and chemical biology	Doctoral student Adnan Shami Shah is lead author of a paper identifying a pathway for treating deadly melanomas, to which doctoral student Xiaofu Cao contributed as a co-author. <a href="#">Learn more...</a>
<b>Julie George</b> , government	Doctoral student Julie George studies emerging technologies and mentors undergraduate researchers in the Tech Policy Lab. <a href="#">Learn more...</a>
<b>Emily Moser</b> , astronomy and space sciences, and <b>Eve Vavagiakis</b> , physics	Doctoral students Emily Moser and Eve Vavagiakis contributed to research that has begun to unveil the material which fuels galaxy formation. <a href="#">Learn more...</a>
<b>Katharine Sadowski</b> , policy analysis and management	Doctoral student Katharine Sadowski contributed to a paper about how pandemic lockdowns boost and democratize online education. <a href="#">Learn more...</a>
<b>Emily Urban</b> , soil and crop sciences	Doctoral student Emily Urban discusses her experience with W.E. Cornell. <a href="#">Learn more...</a>
<b>Mina Barakatain</b> , <b>Lily Lin</b> , and <b>Zenas Lim</b> , information science, and <b>Whitman Barrett</b> , global development	Graduate students Mina Barakatain, Lily Lin, Zenas Lim, and Whitman Barrett were part of the grand prize-winning team at the Cornell Institute for Digital Agriculture Hackathon. <a href="#">Learn more...</a>
<b>Bhargav Sanketi</b> , biochemistry, molecular and cell biology, <b>Rachel Allison</b> , food science and technology, and <b>Kara Fikrig</b> , entomology	Doctoral candidates Bhargav Sanketi, Rachel Allison, and Kara Fikrig participated in the 2021 Three Minute Thesis competition, winning first place, second place, and People's Choice Award, respectively. <a href="#">Learn more...</a>
<b>Andrew Foley</b> , management, <b>Tianyao Qu</b> , sociology, <b>Jonathan Sogin</b> , food science and technology, and <b>Xin Wang</b> , chemical engineering	Doctoral students Andrew Foley, Tianyao Qu, Jonathan Sogin, and Xin Wang share their experiences presenting research at virtual conferences, aided by Graduate School Conference Grants. <a href="#">Learn more...</a>
<b>Anna Evtushenko</b> , information science	Information science doctoral student Anna Evtushenko wrote a play which streamed online on March 27. <a href="#">Learn more...</a>

<p><b>Wei Wang</b>, mechanical engineering, <b>Michael Reynolds</b>, physics, and <b>Michael Cao</b> '14, applied physics</p>	<p>Doctoral students Wei Wang, Michael Reynolds, and Michael Cao are co-authors on a paper about self-folding nanotech and the world's smallest self-folding origami bird it created. <a href="#">Learn more...</a></p>
<p><b>Mikaela Spruill</b>, psychology</p>	<p>Psychology doctoral student Mikaela Spruill reflects on the positive impact Cornell Bouchet Society alumni's continued involvement has had on her experience as a Cornell graduate student. <a href="#">Learn more...</a></p>
<p><b>Joshua Garcia</b>, horticulture, and <b>Kavya Krishnan</b>, soil and crop sciences</p>	<p>Center for Teaching Innovation Graduate Teaching Fellows Joshua Garcia and Kavya Krishnan developed and facilitated a training workshop for the School of Integrative Plant Sciences, working to build more inclusive, equitable learning experiences. <a href="#">Learn more...</a></p>
<p><b>Juhwan Seo</b>, sociology</p>	<p>Sociology doctoral student Juhwan Seo used a Serve in Place Fund grant from the Office of Engagement Initiatives to study how immigrant-owned businesses in New York City fared during the pandemic. <a href="#">Learn more...</a></p>