

# ADARSH PYARELAL

Last updated: 2026-04-01

College of Information Science · University of Arizona · Tucson · Arizona · USA · 85719

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## CHRONOLOGY OF EDUCATION

<i>Duration</i>	<i>Degree</i>	<i>Major</i>	<i>Institution</i>	<i>Dissertation/Thesis Title</i>	<i>Advisor</i>
2011-08 – 2017-05	Ph.D.	Physics	University of Arizona	<a href="#">Hidden Higgses and Dark Matter at Current and Future Colliders</a>	Shufang Su
2007-08 – 2011-05	B.A.	Physics	Reed College	<a href="#">Contribution of the neutral pion Regge trajectory to the exclusive central production of <math>\eta(548)</math> mesons in high energy proton/proton collisions</a>	Nelia Mann

## CHRONOLOGY OF EMPLOYMENT

<i>Duration</i>	<i>Title</i>	<i>Department</i>	<i>Institution</i>
2023-08 –	Assistant Professor	College of Information Science	University of Arizona
2020-09 –	Affiliate Faculty	Cognitive Science GIDP	University of Arizona
2022-08 – 2023-08	Assistant Research Professor	School of Information	University of Arizona
2018-12 – 2022-08	Research Scientist	School of Information	University of Arizona
2017-10 – 2018-12	Postdoctoral Research Associate	School of Information	University of Arizona

## HONORS AND AWARDS

<i>Year</i>	<i>Title &amp; Amount (when available)</i>
2017	Dept. of Physics Publications/Presentations Award Outstanding Graduate Student Colloquium Presentation
2016	Dept. of Physics Publications/Presentations Award Galileo Circle Scholarship (\$1000)
2014	Outstanding Graduate Student Colloquium Presentation Graduate College Fellowship in Physics (\$1500)

## SERVICE / OUTREACH

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### National/International Service

Note: The Association for Computational Linguistics Rolling Review (ARR) is the new unified peer-review system for most top-tier venues published by the Association for Computational Linguistics.

#### Conference Organization

Year	Role	Conference/ARR Cycle
2025	Area Chair	ARR July 2025 Cycle

#### Journal Reviewing

2021 Physics (MDPI) (1 paper)

#### Conference Reviewing

Year	Conference/ARR Cycle	# of new papers reviewed	# of revised papers reviewed
2024	ARR December 2024 Cycle	0	1
	ARR October 2024 Cycle	4	0
	NeurIPS Datasets and Benchmarks Track	5	N/A
	ARR June 2024 Cycle	4	0
	ARR February 2024 Cycle	5	0
2023	NeurIPS Datasets and Benchmarks Track	3	N/A

### National/International Outreach

Date	Venue	Talk Title	City	Type
2022-03-11	SXSW	<i>Building machines that understand humans</i>	Austin, TX	Invited

### Local/State Outreach

Date	Venue	Talk Title	City	Type
2016-11-29	Tucson Data Science Meetup	<i>Machine Learning and Particle Physics</i>	Tucson, AZ	Invited

### University-level Service

Dates	Role	University
2024-	Faculty Advisor, UA AI Club	University of Arizona
2022	SensorLab Seed Grant Reviewer	University of Arizona
2015	Graduate and Professional Student Council (GPSC) Travel Grant Judge	University of Arizona
AY 2012--13	Arizona Assurance Mentor	University of Arizona

### Unit-level Service

Dates	Role	Unit	University
2024-08 – 2026-05	Faculty Awards Committee	College of Information Science	University of Arizona
2024-08 – 2025-05	Faculty Search Committee	Department of Psychology	University of Arizona
2024-08 – 2026-05	Faculty Search Committee	College of Information Science	University of Arizona
2023-08 – 2024-05	Faculty Peer Review Committee	School of Information	University of Arizona
2012–13	Physics Grad Council	Physics	University of Arizona
2012–13	Associated Graduate Council for the College of Science	Physics	University of Arizona
2012–13	Organizer, weekly departmental graduate student seminar series	Physics	University of Arizona

## PUBLICATIONS/CREATIVE ACTIVITY (PUBLISHED OR ACCEPTED)

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- In my primary fields of machine learning, artificial intelligence, and computational linguistics, conference publications are generally ranked higher than journal articles. These are full papers that go through the normal peer review process, as in a journal. In general, work that is published as a conference paper may not be submitted for publication elsewhere.
- For theoretical particle physics papers (marked with a †), the convention is to order authors alphabetically by last name.
- Co-authors who are student advisees or postdoctoral mentees have a ° next to their names.
- Publications substantially based on work done as a graduate student have a \* to their left.

### Refereed Conference Articles

- 2025
- C9. **Enhancing Interpretability in Deep Reinforcement Learning through Semantic Clustering**  
*The Thirty-ninth Annual Conference on Neural Information Processing Systems (NeurIPS 2025).*  
Liang Zhang°, Justin Lieffers°, and **Adarsh Pyarelal**  
URL: <https://openreview.net/forum?id=YTk1kATzOd>
- C8. **MultICAT: Multimodal Communication Annotations for Teams**  
*Findings of the Association for Computational Linguistics: NAACL 2025.*  
**Adarsh Pyarelal**, John M Culnan, Ayesha Qamar, Meghavarshini Krishnaswamy°, Yuwei Wang°, Cheonkam Jeong, Chen Chen°, Md Messal Monem Miah, Shahriar Hormozi°, Jonathan Tong, and Ruihong Huang  
URL: <https://aclanthology.org/2025.findings-naacl.61/>
- 2024
- C7. **When and Where Did it Happen? An Encoder-Decoder Model to Identify Scenario Context**  
*Findings of the Association for Computational Linguistics: EMNLP 2024.*  
Enrique Noriega-Atala, Robert Vacareanu, Salena Torres Ashton°, **Adarsh Pyarelal**, Clayton T Morrison, and Mihai Surdeanu  
DOI: [10.18653/v1/2024.findings-emnlp.219](https://doi.org/10.18653/v1/2024.findings-emnlp.219).
- C6. **Probabilistic Modeling of Interpersonal Coordination Processes**  
*Forty-first International Conference on Machine Learning (ICML 2024).*  
Paulo Soares°, **Adarsh Pyarelal**, Meghavarshini Krishnaswamy°, Emily Butler, and Kobus Barnard  
URL: <https://openreview.net/forum?id=4zOZ0yKhm6>
- 2023
- C5. **The ToMCAT Dataset**  
*Thirty-seventh Conference on Neural Information Processing Systems Datasets and Benchmarks Track.*  
**Adarsh Pyarelal**, Eric Duong°, Caleb Jones Shibu, Paulo Soares°, Savannah Boyd, Payal Khosla, Valeria Pfeifer, Diheng Zhang, Eric S Andrews, Rick Champlin, Vincent Paul Raymond, Meghavarshini Krishnaswamy°, Clayton Morrison, Emily Butler, and Kobus Barnard  
URL: <https://openreview.net/forum?id=ZJwQfgXQb6>
- C4. **Who is Speaking? Speaker-Aware Multiparty Dialogue Act Classification**  
*Findings of the Association for Computational Linguistics: EMNLP 2023.*  
Ayesha Qamar, **Adarsh Pyarelal**, and Ruihong Huang  
DOI: [10.18653/v1/2023.findings-emnlp.678](https://doi.org/10.18653/v1/2023.findings-emnlp.678).
- C3. **Hierarchical Fusion for Online Multimodal Dialog Act Classification**  
*Findings of the Association for Computational Linguistics: EMNLP 2023.*

- Md Messal Monem Miah, **Adarsh Pyarelal**, and Ruihong Huang  
DOI: [10.18653/v1/2023.findings-emnlp.505](https://doi.org/10.18653/v1/2023.findings-emnlp.505).
- 2020 C2. **MathAlign: Linking Formula Identifiers to their Contextual Natural Language Descriptions**  
*Proceedings of The 12th Language Resources and Evaluation Conference.*  
Maria Alexeeva, Rebecca Sharp, Marco A. Valenzuela-Escárcega, Jennifer Kadowaki, **Adarsh Pyarelal**, and Clayton Morrison  
URL: <https://www.aclweb.org/anthology/2020.lrec-1.269>
- 2019 C1. **Eidos, INDRA, & Delphi: From Free Text to Executable Causal Models**  
*Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics (Demonstrations).*  
Rebecca Sharp, **Adarsh Pyarelal**, Benjamin Gyori, Keith Alcock, Egoitz Laparra, Marco A. Valenzuela-Escárcega, Ajay Nagesh, Vikas Yadav, John Bachman, Zheng Tang, Heather Lent, Fan Luo, Mithun Paul, Steven Bethard, Kobus Barnard, Clayton Morrison, and Mihai Surdeanu  
DOI: [10.18653/v1/N19-4008](https://doi.org/10.18653/v1/N19-4008).

## Refereed Journal Articles

- 2024 J4. **Science Vocabulary and Science Achievement in Children with Developmental Language Disorder and typical Language Development**  
*Language, Speech, and Hearing Services in Schools.*  
Jessie A Erikson, Mary Alt, **Adarsh Pyarelal**, and Leah Kapa  
DOI: [10.1044/2024\\_LSHSS-24-00025](https://doi.org/10.1044/2024_LSHSS-24-00025).
- 2020 †\*J3. **Higgs Assisted Razor Search for Higgsinos at a 100 TeV pp Collider**  
*Science China Physics, Mechanics & Astronomy.*  
**Adarsh Pyarelal** and Shufang Su  
DOI: [10.1007/s11433-019-1517-5](https://doi.org/10.1007/s11433-019-1517-5).
- 2019 †J2. **Exotic Higgs decays in Type-II  $\chi$ HDMs at the LHC and future 100 TeV hadron colliders**  
*Journal of High Energy Physics*, 2019(6):31.  
Felix Kling, Honglei Li, **Adarsh Pyarelal**, Huayang Song, and Shufang Su  
DOI: [10.1007/JHEP06\(2019\)031](https://doi.org/10.1007/JHEP06(2019)031).
- 2015 †\*J1. **Light Charged Higgs Bosons to AW/HW via Top Decay**  
*Journal of High Energy Physics*, 11:51.  
Felix Kling, **Adarsh Pyarelal**, and Shufang Su  
DOI: [10.1007/JHEP11\(2015\)051](https://doi.org/10.1007/JHEP11(2015)051).

## Refereed Workshop Articles

Workshop publications are peer-reviewed publications, but less competitive than conference articles. They are meant for authors to get early feedback on their manuscripts prior to submitting them to competitive conferences. In general, workshops are 'non-archival' venues, i.e., the research presented in a workshop paper can be submitted later to another venue (e.g., an 'archival' venue such as a conference).

- 2025 W10. **Variable Extraction for Model Recovery in Scientific Literature**  
*Proceedings of the 1st Workshop on AI and Scientific Discovery: Directions and Opportunities.*  
Chunwei Liu, Enrique Noriega-Atala, **Adarsh Pyarelal**, Clayton T Morrison, and Mike Cafarella  
DOI: [10.18653/v1/2025.aisd-main.1](https://doi.org/10.18653/v1/2025.aisd-main.1),

- 2024 | W9. **Deep Reinforcement Learning with Vector Quantized Encoding**  
*Workshop on Interpretable Policies in Reinforcement Learning @RLC-2024.*  
 Liang Zhang<sup>o</sup>, Justin Lieffers<sup>o</sup>, Pavithra Shivanna, and **Adarsh Pyarelal**  
 URL: <https://openreview.net/forum?id=OyHqrdWADY>
- 2022 | W8. **Rule Based Event Extraction for Artificial Social Intelligence**  
*Proceedings of the First Workshop on Pattern-based Approaches to NLP in the Age of Deep Learning.*  
 Remo Nitschke, Yuwei Wang<sup>o</sup>, Chen Chen<sup>o</sup>, **Adarsh Pyarelal**, and Rebecca Sharp  
 URL: <https://aclanthology.org/2022.pandl-1.9>
- †\*W7. **Exotic Higgs Decays in the Type-II  $\mu$ HDMs at Current and Future pp Colliders**  
*2022 Snowmass Summer Study.*  
 Felix Kling, Honglei Li, Shuailong Li, **Adarsh Pyarelal**, Huayang Song, Shufang Su, and Wei Su  
 URL: <https://arxiv.org/abs/2211.09001>
- 2021 | W6. **Using Features at Multiple Temporal and Spatial Resolutions to Predict Human Behavior in Real Time**  
*AAAI Fall Symposium on Computational Theory of Mind for Human-Machine Teams.*  
 Liang Zhang<sup>o</sup>, Justin Lieffers<sup>o</sup>, and **Adarsh Pyarelal**
- W5. **Probabilistic Modeling of Human Teams to Infer False Beliefs**  
*AAAI Fall Symposium on Computational Theory of Mind for Human-Machine Teams.*  
 Paulo Soares<sup>o</sup>, **Adarsh Pyarelal**, and Kobus Barnard  
 URL: [https://drive.google.com/file/d/1\\_ncab\\_ZXAagVyWVwvTuTmbLqRXnfnFCB/view](https://drive.google.com/file/d/1_ncab_ZXAagVyWVwvTuTmbLqRXnfnFCB/view)
- W4. **Modular Procedural Generation for Voxel Maps**  
*AAAI Fall Symposium on Computational Theory of Mind for Human-Machine Teams.*  
**Adarsh Pyarelal**, Aditya Banerjee<sup>o</sup>, and Kobus Barnard
- 2019 | W3. **AutoMATES: Automated Model Assembly from Text, Equations, and Software**  
*Modeling the World's Systems.*  
**Adarsh Pyarelal**, Marco Antonio Valenzuela-Escárcega, Rebecca Sharp, Paul D. Hein, Jon Stephens, Pratik Bhandari, HeuiChan Lim, Saumya Debray, and Clayton T. Morrison  
 URL: <https://arxiv.org/abs/2001.07295>
- W2. **Interpreting Causal Expressions with Gradable Adjectives to Assemble Dynamics Models**  
*Modeling the World's Systems.*  
**Adarsh Pyarelal**, Rebecca Sharp, Clayton Morrison, and Kobus Barnard
- W1. **Eidos, INDRA, & Delphi: From Free Text to Executable Causal Models**  
*Modeling the World's Systems.*  
 Rebecca Sharp, **Adarsh Pyarelal**, Benjamin Gyori, Keith Alcock, Egoitz Laparra, Marco A. Valenzuela-Escárcega, Ajay Nagesh, Vikas Yadav, John Bachman, Zheng Tang, Heather Lent, Fan Luo, Mithun Paul, Steven Bethard, Kobus Barnard, Clayton Morrison, and Mihai Surdeanu

## Chapters in scholarly books and monographs

- 2022 | B2. **Using Features at Multiple Temporal and Spatial Resolutions to Predict Human Behavior in Real Time**  
*Computational Theory of Mind for Human-Machine Teams*, volume 13775.

Liang Zhang<sup>°</sup>, Justin Lieffers<sup>°</sup>, and **Adarsh Pyarelal**

DOI: [10.1007/978-3-031-21671-8\\_13](https://doi.org/10.1007/978-3-031-21671-8_13).

B1. **Modular Procedural Generation for Voxel Maps**

*Computational Theory of Mind for Human-Machine Teams*, volume 13775.

**Adarsh Pyarelal**, Aditya Banerjee<sup>°</sup>, and Kobus Barnard

DOI: [10.1007/978-3-031-21671-8\\_6](https://doi.org/10.1007/978-3-031-21671-8_6).

## OTHER SCHOLARSHIP

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### Computer Programs/Open Code

*Open-source software repositories which I have spearheaded or made significant contributions to. The entries in the 'Name' column are clickable links to the repositories.*

ID	Name	Description
s10	<a href="#">ASIST Study 4 Testbed</a>	The testbed used for ASIST Study 4. My contribution to the testbed was an updated version of the ASIST Study 3 Testbed's event extraction component that included a spellchecking system to meet the unique requirements of analyzing natural language in Study 4 (reproducibility, real-time output, high precision, and the ability to deal with domain-specific terms and new types of errors arising from the informal nature of text chat) that were not met by existing systems.
s9	<a href="#">ASIST Study 3 Testbed</a>	The testbed used for ASIST Study 3. My contributions to the testbed were components that performed real-time analysis (real-time transcription, event extraction, and labeling of sentiment/emotion) of multi-party spoken dialog in remote experiments.
s8	<a href="#">SKEMA</a>	Main repository for the SKEMA project, containing documentation and software for the text reading, structural alignment, and model role efforts.
s7	<a href="#">ToMCAT</a>	Main repository containing documentation and software for physio experiments.
s6	<a href="#">ToMCAT DialogAgent</a>	Real-time rule-based extraction of events from natural language.
s5	<a href="#">ToMCAT plan recognition</a>	Multi-agent plan recognition
s4	<a href="#">ToMCAT ASR Agent</a>	Real-time automatic speech recognition for multiple participants
s3	<a href="#">ToMCAT SpeechAnalyzer</a>	Real-time extraction of vocalic features, sentiment and emotion detection, and personality trait labeling.
s2	<a href="#">AutoMATES</a>	Automated Model Assembly from Text, Equations, and Software
s1	<a href="#">Delphi</a>	Assembling causal, dynamic, probabilistic models from textual evidence and time series data.

## WORKS IN PROGRESS

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Preprints are non-refereed papers that have been made public. They are also technically ‘manuscripts in preparation’, since they are earlier versions of manuscripts that are in the process of being revised and resubmitted. Manuscripts in preparation that have an associated preprint have names in blue, indicating they are clickable links that link to their corresponding arXiv page. For preprints, the listed year is the year that the preprint was uploaded. However, these papers are typically currently under preparation for resubmission.

### Manuscripts in preparation and preprints

MP3. **Diversifying Synthetic Data for Data-Scarce Domains**

*JMLR*.

Justin Lieffers<sup>o</sup>, Deepsana Shahi<sup>o</sup>, Clayton T Morrison, and **Adarsh Pyarelal**

MP2. **Neural Machine Translation for Code Generation**

*ACM Computing Surveys*.

Dharma KC, Justin Lieffers<sup>o</sup>, Deepsana Shahi<sup>o</sup>, **Adarsh Pyarelal**, and Clayton Morrison

MP1. Multi-Timescale Modeling of Human Behavior.

Chinmai Basavaraj<sup>o</sup>, **Adarsh Pyarelal**, and Evan Carter

<https://arxiv.org/abs/2211.09001>

### MEDIA COVERAGE

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ID	Date	Title	Publication
M2	2020-01-28	<a href="#">Desi scientist in US is building AI that ‘understands’ you</a>	Times of India
M1	2020-01-22	<a href="#">Socially savvy artificial intelligence to be developed at UA</a>	Arizona Daily Star

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## SCHOLARLY PRESENTATIONS

### Colloquia

ID	Date	Venue	Title	Type
CQ5	2023-03-16	University of Arizona School of Information	<i>From Tools to Teammates: Building machines that understand humans</i>	Invited
CQ4	2023-01-27	University of Arizona School of Information	<i>Artificial Social Intelligence</i>	Research Blitz
CQ3	2021-12-09	University of Arizona School of Information	<i>Theory of Mind-based Cognitive Architecture for Teams</i>	Research Blitz
CQ2	2020-10-08	University of Arizona Systems and Industrial Engineering	<i>Building machines that understand humans</i>	Invited
CQ1	2020-09-04	University of Arizona Cognitive Science Colloquium Series	<i>Building machines that understand humans</i>	Invited

### Conferences

ID	Date	Venue	Title	City	Type
CP6	2019	TRIPODS 2nd Southwest Summer Conference	<i>Eidos, INDRA, &amp; Delphi: From Free Text to Executable Causal Models</i>	Tucson, AZ	Submitted
CP5	2016	Joint Meeting of the Four Corners and Texas Sections of the American Physical Society	<i>A Razor Search for Dark Matter at a Future 100 TeV Collider</i>	Las Cruces, NM	Submitted
CP4	2015	Phenomenology 2015 Symposium	<i>Light Charged Higgs Bosons in Single-Top Production</i>	Pittsburgh, PA	Submitted
CP3	2015	Annual Meeting of the APS Four Corners Section	<i>Light Charged Higgs Bosons in Two Higgs Doublet Models</i>	Tempe, AZ	Submitted
CP2	2014	Annual Meeting of the APS Four Corners Section	<i>Light Charged Higgs Bosons in Single-Top Production</i>	Orem, UT	Submitted
CP1	2014	23 <sup>rd</sup> International Conference on Supersymmetry and Unification of Fundamental Interactions	<i>Light Charged Higgs Bosons to AW/HW via Top Decay</i>	Lake Tahoe, CA	Submitted

### Posters

- 2022 | P5. **Science Vocabulary and Language Skills Predict Science Achievement in Students with and without DLD**  
*American Speech & Hearing Association (ASHA) Convention.*  
 Jessie Alise Erikson, Mary Alt, and **Adarsh Pyarelal**
- P4. **Science vocabulary knowledge and science achievement for children with and without developmental language disorder**  
*Symposium on Research in Child Language Disorders (SRCLD).*  
 Jessie Alise Erikson, Mary Alt, and **Adarsh Pyarelal**

2021	<p>P3. <b>A Low-Language Alternative for Measuring Academic Science Vocabulary Depth</b>  <i>Symposium on Research in Child Language Disorders (SRCLD).</i>          Jessie Erikson Pyarelal, Siena Schoelen, Mary Alt, and <b>Adarsh Pyarelal</b></p> <p>P2. <b>Sci-Vocab: An open-source web app for studying scientific vocabulary</b>  <i>Annual University of Arizona Undergraduate Biology Research Program (UBRP) Conference.</i>          Siena Schoelen, <b>Adarsh Pyarelal</b>, Jessie Erikson Pyarelal, and Mary Alt</p>
2020	<p>P1. <b>Tools to Support Computational Crop Model Analysis and Comparison</b>  <i>Proceedings of the Second International Crop Modelling Symposium (iCROP2020).</i>          Clayton T. Morrison, Paul D. Hein, <b>Adarsh Pyarelal</b>, Gerrit Hoogenboom, and Cheryl Porter</p>

## AWARDED GRANTS AND CONTRACTS

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- *The funding amount, period of performance, effort, credit, and list of co-PIs are based on the original awarded contract. In practice, these can vary over the course of the project.*
- *Grants are organized by source of funding (federal/state), and further ordered in reverse chronological order based on the date of receipt of the notice of award.*
- *For grants, total, direct, and indirect funding amounts have been provided. The indirect funding amount is obtained by subtracting the direct funding amount from the full funding amount.*
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### Federal

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ID	Title, Funding source and amounts, Role, Effort, co-PIs, and Dates														
G11	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;"><i>Title</i></td> <td>Next-Generation Teams</td> </tr> <tr> <td><i>Source</i></td> <td>United States Army Contracting Command</td> </tr> <tr> <td><i>Amount</i></td> <td>\$882,546</td> </tr> <tr> <td><i>Role</i></td> <td>PI</td> </tr> <tr> <td><i>Effort</i></td> <td>35% during the academic year &amp; 1 summer month</td> </tr> <tr> <td colspan="2" style="padding-top: 10px;"><i>Period of Performance</i> 2023-12–2025-11</td> </tr> <tr> <td><i>Co-PIs</i></td> <td>Kobus Barnard, Clayton Morrison, Winslow Burleson</td> </tr> </table>	<i>Title</i>	Next-Generation Teams	<i>Source</i>	United States Army Contracting Command	<i>Amount</i>	\$882,546	<i>Role</i>	PI	<i>Effort</i>	35% during the academic year & 1 summer month	<i>Period of Performance</i> 2023-12–2025-11		<i>Co-PIs</i>	Kobus Barnard, Clayton Morrison, Winslow Burleson
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<i>Co-PIs</i>	Kobus Barnard, Clayton Morrison, Winslow Burleson														
G10	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;"><i>Title</i></td> <td><a href="#">SKEMA: Scientific Knowledge Extraction and Model Analysis</a></td> </tr> <tr> <td><i>Source</i></td> <td>Defense Advanced Research Projects Agency</td> </tr> <tr> <td><i>Amount</i></td> <td>\$3,253,997</td> </tr> <tr> <td><i>Role</i></td> <td>PI on UArizona subaward</td> </tr> <tr> <td><i>Effort</i></td> <td>50% until 2024-04, then 100% for the remainder of the project.</td> </tr> <tr> <td colspan="2" style="padding-top: 10px;"><i>Period of Performance</i> 2023-12–2025-11</td> </tr> <tr> <td><i>Co-PIs</i></td> <td>PI on prime award (Lum.AI): Clayton Morrison PI on SIFT subaward: Daniel Bryce co-PIs on UArizona subaward: Enrique Noriega, Mihai Surdeanu, Katherine Isaacs</td> </tr> </table>	<i>Title</i>	<a href="#">SKEMA: Scientific Knowledge Extraction and Model Analysis</a>	<i>Source</i>	Defense Advanced Research Projects Agency	<i>Amount</i>	\$3,253,997	<i>Role</i>	PI on UArizona subaward	<i>Effort</i>	50% until 2024-04, then 100% for the remainder of the project.	<i>Period of Performance</i> 2023-12–2025-11		<i>Co-PIs</i>	PI on prime award (Lum.AI): Clayton Morrison PI on SIFT subaward: Daniel Bryce co-PIs on UArizona subaward: Enrique Noriega, Mihai Surdeanu, Katherine Isaacs
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G7	<i>Title</i>	ToMCAT: Theory of Mind-based Cognitive Architecture for Teams
	<i>Source</i>	Defense Advanced Research Projects Agency
	<i>Amount</i>	\$7,497,548
	<i>Role</i>	PI
	<i>Effort</i>	100%
	<i>Period of Performance</i>	2019-11-2023-10
	<i>Co-PIs</i>	Clayton Morrison, Kobus Barnard, Mihai Surdeanu, Rebecca Sharp, Marco Valenzuela-Escárcega
G9	<i>Title</i>	Development of an open-source dashboard for team communication experiments
	<i>Source</i>	UArizona SensorLab
	<i>Amount</i>	\$27,288
	<i>Role</i>	PI
	<i>Effort</i>	N/A (PI salary was not allowed on this intramural seed grant.)
	<i>Period of Performance</i>	2021-01-2022-06
G8	<i>Title</i>	Automated real-time detection of closed-loop communication in spoken dialogue
	<i>Source</i>	UArizona SensorLab
	<i>Amount</i>	\$13,540
	<i>Role</i>	PI
	<i>Effort</i>	N/A (PI salary was not allowed on this intramural seed grant.)
	<i>Period of Performance</i>	2021-01-2022-06
G6	<i>Title</i>	AutoMATES: Automated Model Assembly from Text, Equations, and Software
	<i>Source</i>	Defense Advanced Research Projects Agency
	<i>Amount</i>	\$961,959
	<i>Role</i>	Co-PI
	<i>Effort</i>	65%
	<i>Period of Performance</i>	2018-11-2020-05
	<i>Co-PIs</i>	PI: Clayton Morrison Other Co-PIs: Saumya Debray, Rebecca Sharp, Marco Valenzuela-Escárcega
G5	<i>Title</i>	American Physical Society 4CS Student Travel Grant
	<i>Source</i>	American Physical Society
	<i>Amount</i>	Not available (awarded a long time ago, could not find the amount in my email inbox)
	<i>Year</i>	2016
G4	<i>Title</i>	American Physical Society 4CS Student Travel Grant
	<i>Source</i>	American Physical Society

	<i>Amount</i>	\$105
	<i>Year</i>	2015
G3	<i>Title</i>	GPSC Travel Award
	<i>Source</i>	Graduate and Professional Student Council (GPSC)
	<i>Amount</i>	\$750
	<i>Year</i>	2015
G2	<i>Title</i>	Professor C. Y. Fan 'FanFare' Travel Award
	<i>Source</i>	UArizona Department of Physics
	<i>Amount</i>	\$500
	<i>Year</i>	2015
G1	<i>Title</i>	American Physical Society 4CS Student Travel Grant
	<i>Source</i>	American Physical Society
	<i>Amount</i>	Not available (awarded a long time ago, could not find the amount in my email inbox)
	<i>Year</i>	2014

## State

ID	Title, Funding source and amounts, Role, Effort, co-PIs, and Dates		
G12	<i>Title</i>	Defining a digital phenotype for labor in at-risk pregnancies	
	<i>Source</i>	Arizona Biomedical Research Centre	
	<i>Amount</i>	\$746,731	
	<i>Role</i>	Co-PI	
	<i>Effort</i>	1.75 summer months in 2025	
	<i>Period of Performance</i>	2025-07-01 – 2028-06-30	
	<i>Co-PIs</i>	PI: Elise Erickson Other Co-PIs: Shravan Aras, Sarah Kellerhals	

## TEACHING AND MENTORING

### Research Staff: Primary Supervisor

Start	End	Name	Position
Fall 2023	Spring 2026	Liang Zhang	Research Scientist III

### Postdoctoral: Primary Supervisor

Start	End	Name	University
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Fall 2022	Fall 2024	Justin Lieffers	University of Arizona
Spring 2022	Spring 2023	John Culnan	University of Arizona
Fall 2020	Fall 2023	Liang Zhang	University of Arizona

### Postdoctoral: Co-Supervisor

Start	End	Name	Notes
Fall 2021	Fall 2023	Chinmai Basavaraj	Primary supervisor: Evan Carter (ARL)

### Doctoral: Co-Advisor

Start	End	Name	University
Spring 2024	-	Deepsana Shahi	University of Arizona

### Doctoral: Member of Dissertation Committee

Semester	Name	Student's home department	University
Summer 2025	Meghavarshini Krishnaswamy	Linguistics	University of Arizona

### Doctoral: Member of Comprehensive Exam Committee

Semester	Name	Student's home department	University
Summer 2025	Deepsana Shahi	College of Information Science	University of Arizona
Spring 2025	Yuwei Wang	East Asian Studies	University of Arizona
Spring 2024	Salena Torres Ashton	College of Information Science	University of Arizona
Fall 2024	Kadir Bulut Ozler	College of Information Science	University of Arizona

### Doctoral: Research Project Mentor

Start	End	Name	University
Fall 2022	Fall 2023	Deepsana Shahi	University of Arizona
Spring 2022	Spring 2023	Chen Chen	University of Arizona
Fall 2021	Spring 2023	Remo Nitschke	University of Arizona
Fall 2021	Spring 2023	Yuwei Wang	University of Arizona
Fall 2021	Summer 2025	Meghavarshini Krishnaswamy	University of Arizona
Fall 2019	Fall 2023	Salena Torres Ashton	University of Arizona
Fall 2019	Spring 2024	Paulo Soares	University of Arizona
Summer 2019	Fall 2023	Loren Champlin	University of Arizona
Spring 2018	Fall 2018	Tanya Jeffries	University of Arizona
Fall 2018	Spring 2022	Manujinda Wathugala	University of Arizona

### Doctoral: Minor Advisor

Semester	Name	Student's home department	University
Spring 2025	Muhammad Jawad	Hydrology and Atmospheric Sciences	University of Arizona
Spring 2025	Stefanie Boyles	College of Nursing	University of Arizona
Spring 2024	Yuwei Wang	East Asian Studies	University of Arizona

### Masters: Member of Committee

Semester	Name	University
Fall 2023	Caleb Shibu	University of Arizona

### Masters: Research Project Mentor

Start	End	Name	University
Fall 2021	Fall 2022	Gauri Yadav	University of Arizona

### Undergraduate: Research Project Mentor

Start	End	Name	University
Fall 2023	Fall 2025	Minglai Yang	University of Arizona
Spring 2023	Spring 2023	Zach Keyes	University of Arizona
Spring 2022	Spring 2022	Stephen Kim	University of Arizona
Fall 2021	Summer 2022	Aditya Jadhav	University of Arizona
Spring 2021	Fall 2022	Shambhavi Singh	University of Arizona
Spring 2020	Fall 2021	Shreeya Jain	University of Arizona
Spring 2020	Fall 2020	Da Long	University of Arizona
Fall 2020	Spring 2021	Siena Schoelen	University of Arizona
Fall 2019	Summer 2020	Runnan Zhou	University of Arizona
Fall 2019	Spring 2020	Lize Chen	University of Arizona

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Fall 2019	Spring 2020	Jiangfeng Li	University of Arizona
Fall 2019	Spring 2023	Aditya Banerjee	University of Arizona
Fall 2018	Spring 2020	Nicholas Ziolkowski	University of Arizona
Spring 2018	Spring 2019	David Weinflash	University of Arizona

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## Awards won by mentored students

Year	Name	Student type	Award
2023	Aditya Banerjee	Undergraduate	Computer Science outstanding researcher for his graduating class
2021	Aditya Banerjee	Undergraduate	Galileo Circle Scholarship in Computer Science
2021	Paulo Soares	Doctoral	Outstanding research in Cognitive Science Award
2021	Siena Schoelen	Undergraduate	Outstanding senior in Speech, Language, and Hearing Sciences

## Courses Taught

Year	Term	Course No.	Course Title	Role	Enrollment
2025	Spring	INFO 521	Introduction to Machine Learning	Instructor	9
2024	Fall	INFO 521	Introduction to Machine Learning	Instructor	15
	Spring	ISTA 421/INFO 521	Introduction to Machine Learning	Instructor	16
2023	Fall	ISTA 421/INFO 521	Introduction to Machine Learning	Instructor	35
2017	Spring	PHYS 105A	Introduction to Scientific Computing	Lab instructor	24
2015	Fall	PHYS 381/382	Methods in Experimental Physics I/II	Lab instructor	35
	Spring	PHYS 381/382	Methods in Experimental Physics I/II	Lab instructor	37
2014	Fall	PHYS 381/382	Methods in Experimental Physics I/II	Lab Instructor	26
	Summer	PHYS 141	Introductory Mechanics	Lab Instructor	23
	Spring	PHYS 381/382	Methods in Experimental Physics I/II	Lab instructor	34
2013	Fall	PHYS 381/382	Methods in Experimental Physics I/II	Lab instructor	21
	Spring	PHYS 241	Introductory Electricity and Magnetism	Lab instructor	43
2012	Fall	PHYS 102	Introductory Physics I	Lecturer	137
	Summer	PHYS 181	Introductory Laboratory I	Lab Instructor	24
	Spring	PHYS 241/261H	Introductory Electricity and Magnetism	Lab instructor	37
2011	Fall	PHYS 261H	Honors Introductory Electricity and Magnetism	Lab instructor	27

## Other

<i>Summers of 2017, 2020</i>	Organized the IVILab Summer Programming Bootcamp. Prepared syllabi and instructional materials, gave lectures, graded assignments, and recruited and coordinated other lecturers.
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