Jason S. **Lucas**

Ph.D. Candidate · Data Science & AI, Health, & Public Health Informatics Specialist

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My research develops trustworthy, multilingual AI systems that bridge the digital language divide across 70+ languages, prioritizing cybersecurity, information integrity, and safe human-AI interaction for underserved linguistic communities worldwide. Drawing on an interdisciplinary foundation spanning health informatics, epidemiology, linguistics, and computing, I address critical challenges in combating harmful content, mitigating cybersecurity vulnerabilities, and democratizing state-of-the-art AI capabilities so that language is no longer a barrier to equitable participation in the global information ecosystem.

SUMMARY

- Fifth-year PhD candidate and AI/NLP researcher with 10+ years of interdisciplinary expertise spanning health informatics, epidemiology, higher education (medicine, informatics, public health), and advanced NLP systems. Leading data sciences and low-resource multilingual NLP research at Penn State's PIKE Lab under Dr. Dongwon Lee, specializing in information integrity, cybersecurity, safe and ethical applications of AI, and combating harmful content across 70+ languages and modalities.
- Published 10 top-tier papers (260+ citations) at premier venues (EMNLP, ACL, NAACL, COLING, IEEE) advancing multilingual language understanding and generation, adversarial machine learning, transfer learning, in-context learning, RAG and Agentic AI workflows. Research bridges academic innovation with real-world impact through industry collaborations at Lawrence Livermore National Lab, Interactions LLC, and Coalfire Systems, Inc.
- NSF LinDiV Fellow advancing human language technologies through transdisciplinary approaches. Drawing from Grenadian background and knowledge of Creole languages, I bring a global perspective to democratizing AI capabilities for underserved linguistic communities, transforming the digital language divide into opportunities for innovation and inclusion.
- Proven technical leader mentoring 5+ research interns and teaching Applied Generative AI courses. Expert in developing end-to-end AI solutions using PyTorch, HuggingFace, vLLM, and cloud platforms, with demonstrated success in combating evolving security threats and enhancing global AI accessibility.

EDUCATION

Postdoctoral Associate — *New Haven, CT*

Yale School of Public Health, Department of Biostatistics — *Jun. 2026 - May 2027*

- **Research Project**: Trustworthy AI for Healthcare and Population Health Applications
- **Description**: Developing methods and tools for the analysis of electronic health records and real-world healthcare data. Research encompasses building robust, trustworthy AI-driven approaches for population health, with opportunities for collaboration with faculty specializing in cancer and cardiovascular diseases.
- Supervisor: Bhramar Mukherjee, PhD (Senior Associate Dean of Public Health Data Science and Data Equity)
- Projects: Electronic Health Records, Real-World Healthcare Data Analysis, Trustworthy AI

Ph.D. in Informatics –Data Science and AI/NLP — *University Park, PA*

Pennsylvania State University — *Aug. 2021 - May 2026[**Expected**]*

- Thesis: Advancing Low-resource Multilingual NLP Approaches for Cybersecurity in the Era of Artificial Intelligence
- Advisor: Dr. Dongwon Lee
- GPA: 3.91

MPH –Epidemiology — *St. George's, GD*

St. George's University — *Jan. 2018 - Aug. 2020*

- Capstone: Effects of Self-Care Apps in Prediabetics in Grenada
- Advisor: Dr. Emanual Keku
- GPA: 3.83

M.Sc. in Computer Information Systems –Health Informatics — *Boston, MA*

Boston University — *Jan. 2012 - Sep. 2014*

- Capstone: Advancing Health Information Systems(EHR) in Low-Middle Income Countries
- Advisor: Dr. Vladimir Brusic
- GPA: 3.64

B.Sc. in Information Technology –cum laude — *St. George's, GD*

St. George's University — *Jan. 2007 - May 2010*

- Information Systems Project: Azure Medical Clinic Web Application
- Advisor: Dr. Michael Roberts
- GPA: 3.64

A.S. in Information Technology — *St. George's, GD*

T.A. Marryshow Community College — *Aug. 2005 - Jul. 2007*

- IT Project: Flight reservation website
- GPA: 3.33

NSF NRT Graduate Research Traneeship Certificate –Linguistics and Language Sciences — *University Park, PA*

Pennsylvania State University — *Aug. 2022 - Aug. 2024*

- Trained in breadth and depth in linguistics & language sciences, e.g., generative syntax, sociolinguistics
- Transdisciplinary Research Project: BAbSANT Speech Pathology AI-Platform (Streamlit)
- Internship Research Project: Conversation AI: Chain-of-interaction for intelligent Virtual Systems
- Advisor: Dr. Janet Van Hell

SKILLS

Programming Languages	Python, JAVA, SQL, LaTeX, HTML5, CSS, PHP, R, C++
Machine Learning	PyTorch, Tensorflow, Transformers, Adapter-Transformers, adapterHub, Pandas, Numpy, Scikit-learn, vLLM
Data Scraping	Twitter API, Selenium, Tesseract
Platforms	VS Codes,Epi Info, GeoDa, PyCharm IDE, IntelliJ IDE, Google Cloud, Microsoft Azure, MS Office, Streamlit
Domain Expert	Health Informatics, Epidemiology, Artificial Intelligence Engineering, Data Science Engineering, HIS (EHR)
Transferable	Leadership, Presentation, Project Management, Training, Problem Solving, Time Management, Adaptability
Research	Critical Thinking, Data Analytics, Scientific Writing, Grant Writing, Collaboration, Independent Learning

INTERESTS

Techniques	Transfer Learning (Full-FT & PEFT), In-context Learning, Prompt Engineering, Adversarial ML, Automatic Evaluation (AEM, LLMs)
Framework	PyTorch, Tensorflow, Transformers, Hugging Face, AdapterHub, Pandas, Numpy, Scikit-learn
Domain Areas	Information Integrity, Harmful Content, Scientific Reasoning, Conversational AI, AI for Cybersecurity, Safe and Ethical AI

PUBLICATIONS

Conference Publications [240 citations]

8. **[EMNLP'25]** Jason Lucas, John Chen, Ali Al-Lawati, Mahjabin Nahar, Mahnoosh Mehrabani. **Chain-of-Interactions: Iterative ICL Framework for Abstractive Task-Oriented Dialogue Summarization of Conversational AI Interactions**. In Findings of the Association for Computational Linguistics: EMNLP 2025. Association for Computational Linguistics, 2025.

7. **[EMNLP'25]** Ali Al-Lawati, Jason Lucas, Zhiwei Zhang, Prasenjit Mitra, Suhang Wang. **Graph-based Molecular In-context Learning Grounded on Morgan Fingerprints**. In Findings of the Association for Computational Linguistics: EMNLP 2025. Association for Computational Linguistics, 2025.

6. **[NAACL'25]** Ekaterina Artemova, Jason Lucas, Saranya Venkatraman, Jooyoung Lee, Sergei Tilga, Adaku Uchendu, Vladislav Mikhailov. **Beemo: Benchmark of Expert-edited Machine-generated Outputs**. In Proceedings of the 2025 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 1: Long Papers), pages 6992–7018. Association for Computational Linguistics, 2025.

5. **[COLING'25]** Ali Al-Lawati, Jason Lucas, Prasenjit Mitra. **Semantic Captioning: Benchmark Dataset and Graph-Aware Few-Shot In-Context Learning for SQL2Text**. In Proceedings of the 31st International Conference on Computational Linguistics, pages 8026–8042, Abu Dhabi, UAE. Association for Computational Linguistics, 2025.

4. **[EMNLP'24]** Dominik Macko, Robert Moro, Adaku Uchendu, Ivan Srba, Jason Lucas, Michiharu Yamashita, Nafis Irtiza Tripto, Dongwon Lee, Jakub Simko, Maria Bielikova. **Authorship Obfuscation in Multilingual Machine-Generated Text Detection**. In Findings of the Association for Computational Linguistics: EMNLP 2024, pages 13706–13724. Association for Computational Linguistics, 2024.

3. **[EMNLP'23]** Dominik Macko, Robert Moro, Adaku Uchendu, Jason Lucas, Michiharu Yamashita, Matúš Pikuliak, Ivan Srba, Thai Le, Dongwon Lee, Jakub Simko, Maria Bielikova. **MULTITuDE: Large-Scale Multilingual Machine-Generated Text Detection Benchmark**. In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP), pages 9960–9987, Singapore. Association for Computational Linguistics, 2023.

2. **[EMNLP'23]** Jason Lucas, Adaku Uchendu, Michiharu Yamashita, Jooyoung Lee, Shaurya Rohatgi, Dongwon Lee. **Fighting Fire with Fire: The Dual Role of LLMs in Crafting and Detecting Elusive Disinformation**. In Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP), pages 14279–14305, Singapore. Association for Computational Linguistics, 2023.

1. **[ACL'22]** Jason Lucas, Limeng Cui, Thai Le, Dongwon Lee. **Detecting False Claims in Low-Resource Regions: A Case Study of Caribbean Islands**. In Proceedings of the Workshop on Combating Online Hostile Posts in Regional Languages during Emergency Situations, pages 95–102, Dublin, Ireland. Association for Computational Linguistics (ACL), 2022.

Journal Publications [20 citations]

3. **[IEEE Comp.'26]** Dominik Macko, Aashish Anantha Ramakrishnan, Jason Lucas, Robert Moro, Ivan Srba, Adaku Uchendu, Dongwon Lee. **Beyond Speculation: Measuring the Growing Presence of LLM-generated Texts in Multilingual Disinformation**. IEEE Computer, 2026.

2. **[IEEE Int. Sys.'24]** Jason Lucas, Maung Maung Barani, Tabar Maryam, McBride Keegan, Dongwon Lee. **The Longtail Impact of Generative AI on Disinformation: Harmonizing Dichotomous Perspectives**. IEEE Intelligent Systems, 2024.

1. **[IEEE Comp.'24]** Barani Maung Maung, Keegan McBride, Jason Lucas, Maryam Tabar, Dongwon Lee. **Generative AI Disproportionately Harms Long Tail Users**. IEEE Computer, Volume 57, Issue 11, 2024.

Manuscript

3. [**Under Review**] Jason Lucas, Matt Murtagh White, Adaku Uchendu, Ali Al-Lawati, Michiharu Yamashita, Dominik Macko, Ivan Srba, Robert Moro, Dongwon Lee. **BLUFF: Benchmarking Falsehoods in Long-tail Multilingual Low-Resource Languages**. 2026.

2. [**Under Review**]Jason Lucas, Pureheart Irikefe, Patrice Sterlin, Cornelius Adejoro, Umniya Najaer, Adaku Uchendu, Dongwon Lee. **Position: Breaking the Dual Curse of Multilingual AI Requires Socio-Technical Guardrails**. 2026.

1. **[Under Review]** Jason Lucas, Matt Murtagh, Ali Al-Lawati, Uchendu Uchendu, Adaku Uchendu, Dongwon Lee. **DIA-HARM: Harmful Content Detection Robustness Across 50 English Dialects**. 2026.

EXPERIENCE

Research Experience

Yale School of Public Health — *New Haven, CT*

Postdoctoral Researcher — *Jun. 2026 - Present*

- **Research Project**: Trustworthy AI for Healthcare and Population Health Applications
- **Description**: Developing trustworthy AI systems for electronic health records and healthcare data analysis, with a focus on equitable, safe, and reliable AI-driven approaches for population health. Research encompasses building robust models that prioritize fairness, privacy, and information integrity across diverse patient populations, advancing human-AI interaction in clinical settings, and ensuring AI systems serve underserved communities effectively.
- Supervisor: Bhramar Mukherjee
- Projects: Trustworthy AI, Electronic Health Records, Population Health Analytics

Interactions LLC — *Remote*

NLP Research Internship — *May 2024 - Aug. 2024*

- **Research Project**: LinDiv Internship Research
- **Description**: Led human-AI task-oriented dialogue summarization research using intelligent virtual assistant data. Developed an iterative in-context learning approach leveraging zero-shot prompt engineering and LLMs (proprietary and open-source) through extract-informative summarization, interactive refinement, and self-evaluation methods. Implemented few-shot information retrieval techniques and automatic evaluation metrics and conducted human studies.
- Supervisor: John Chen, Mahnoosh Mehrabani
- Projects: Conversational AI: Chain-of-Interactions

LinDiv Graduate Research Traineeship Program — *Penn State University*

NSF NRT Fellowship Training — *Aug. 2022 - Present*

- **Research Project**: LinDiv Transdisciplinary Research
- **Description**: Led technical and prototype development for an AI-powered platform supporting speech-language pathology. Research encompassed application development (Streamlit), prompt engineering, in-context learning, and LLMs (GPT-4o, Whisper). Conducted transdisciplinary research bridging linguistics, psychology, and AI to advance human language technologies for social good.
- Advisor: Janet Van Hell
- Projects: BAbSANT AI Platform

PIKE Research Lab — *Penn State University*

Graduate Research Assistant — *Aug. 2021 - Present*

- **Research Project**: SysFake, SocialGPT, FCFC
- **Description**: Led research projects and collaborate with internal and international researchers. Research encompasses NLG, NLU, LLMs, transfer learning (fine-tuning), in-context learning, information retrieval (RAG), Agentic AI, adversarial ML, deep learning, and data scraping. Developed methods to detect deepfake text and human-AI disinformation. Developed techniques to bypass LLM safety guardrails, exploring LLMs to generate disinformation in multiple languages. Work encompassed model adaptation (Full FT & PEFT) and development for multilingual and cross-lingual transfer, emphasizing low-resource languages.
- Advisor: Dongwon Lee
- Projects: F3, Caribbean-Transfer, F3, BLUFF, GREENLAND

Teaching Experience

IST 597: Applied Generative AI — *Penn State University*

Graduate Teaching Assistant — *Jan. 2025 - May 2025*

- Teaching assistant for an advanced special topics course on Applied Generative AI
- Assisted professor with classroom management, teaching, and discussions
- Created assignments and quizzes, and ran practical labs on LLM applications and AI system development
- Graded assignments/exams and held office hours for student support
- Mentored students on prompt engineering, in-context learning, and generative AI workflows

IST 402: Posthuman Performance: Humans, Robotics and AI in Action

Penn State University

Graduate Teaching Assistant

Jan. 2025 - May 2025

- Teaching assistant for an Emerging Issues and Technologies course that focuses on Human, Robots, and AI
- Assisted professor with classroom management and teaching, discussion and labs
- Graded assignments/exams and held office hours for student support
- Supervised interns and led projects: Blender: Spot Robot Simulation, Origins Lab: Collaborative Robotic Arm

IST 210: Organization of Data

Penn State University

Graduate Teaching Assistant

Jan. 2022 - May 2022

- Teaching assistant for database course teaching fundamental concepts
- Assisted students in using Microsoft SQL, conceptualizing concepts, and practical skills
- Graded assignments/exams and held office hours for student support

IST 140: Introduction to Application Development

Penn State University

Graduate Teaching Assistant

Aug. 2021 - Dec. 2021

- Teaching assistant for an introductory course in programming principles using Java
- Assisted students in using IntelliJ and understanding programming concepts
- Graded assignments/exams and held office hours for student support

BPM II: Basic Principles of Medicine

St. George's University

Instructor

Jan. 2021 - Jun. 2021

- Served as a lecturer for Introduction to Biomedical Informatics
- Developed material, assessment, and exam questions
- Conducted student office hours

PUBH 302: Public Health Informatics

St. George's University

Instructor

Aug. 2020 - Jun. 2021

- Served as a lecturer for Introduction to Health Informatics
- Developed exam questions and conducted office hours for student support

COMP 420: Database Systems

St. George's University

Adjunct Assistant Professor

Aug. 2010 - Dec. 2011

- Served as a course director for an advanced database system course
- Developed exam questions and course material
- Lectured and conducted practical lab sessions
- Graded assignments/exams and provided feedback
- Conducted office hours for student support

Information Technology

Ministry of Education, Gov. of Grenada

Certified Teacher I

Aug. 2010 - Jul. 2011

- Taught Information Technology at The Anglican High School
- Developed exam questions and class materials
- Managed IT lab and conducted practical lab sessions
- Graded assignments/exams and provided feedback
- Took students' attendance and managed a class cohort

COMP 420: Database Systems

St. George's University

Facilitator

Aug. 2009 - May 2010

- Undergrad tutoring and small group facilitation

Professional Experience

Penn State University

University Park, PA

Graduate Research/Teaching Assistant. **Assistantship**

Aug. 2021 - Current

- Developed novel research directions and lead projects.
- Assisted with course management and teaching responsibilities.
- Developed novel NLP and machine learning approaches.
- Collaborated with national and international research leaders/institutions.
- Mentored research interns.

Lawrence Livermore National Lab

Livermore, CA

DSSI Graduate Research Intern. **Internship**

May 2025 - Aug. 2025

- Conducted cutting-edge research in multilingual NLP focusing on LLMs, LRMs, and MLLMs
- Developed novel approaches for safe AI, scientific reasoning, and mixture-of-agents frameworks
- Advanced capabilities for low-resource multilingual settings and bridging agents
- Collaborated with national lab researchers on AI safety and reasoning capabilities
- Enhanced multilingual performance and robustness across diverse language families
- Conducted research presentations and contribute to critical national security applications

Interactions LLC *New Providence, NJ*

NLP Intern. **Internship** *May 2024 - July 2024*

- Led research directions and projects.
- Invented novel NLP and machine learning approaches.
- Leveraged LLMs' advanced capabilities, e.g., In-Context learning
- Collaborated with industry experts and academic researchers.
- Garnered in-depth understanding of conversational AI, intelligent virtual assistant technology, and industry.
- Conducted research presentations and contribute to innovative ideas and projects

Coalfire *Greenwood Village, CO*

Cybersecurity Consultant. **Internship** *May. 2023 - August. 2023*

- Learned PCI SSC reporting essentials
- Participated in client-facing security assessments.
- Documented PCI DSS compliance findings
- Collaborated on PCI process improvements.
- Project: Utilized Wireshark & DevTools for data encryption checks.

St. George's University *St. George's, Grenada*

Instructor/Demonstrator/Adjunct Professor. **Faculty** *Dec. 2011 - July. 2021*

- Headed B-Line division and managed teams across the Clinical Skills Department
- Administered B-Line SimCapture platform across the School of Medicine
- Developed training material and trained users across clinical medicine education
- Mentored colleagues and interns
- Taught undergraduate and graduate-level courses in IT, Medicine, and Public Health

Ministry of Education, Government of Grenada *St. George's, Grenada*

Certified Teacher I. **Instructor** *Aug. 2010 - Jul 2011*

- Assisted with troubleshooting and resolving IT issues
- Conducted software and hardware installations
- Documented IT processes and incident reports
- Collaborated with the IT team on projects and tasks

LIME (Cable & Wireless Communications) *St. George's, Grenada*

IT Intern. **Internship** *Jan. 2010 - May 2010*

- Assisted with troubleshooting and resolving IT issues
- Supported software and hardware installations
- Documented IT processes and incident reports
- Collaborated with the IT team on projects and tasks

Information Systems Projects

St. George's University *St. George's, Grenada*

Telemedicine & Virtual Hospital Teaching Project *Sept. 2020*

- Led team to gather functional requirements and make strategic recommendations
- Executed the appropriation, piloting, testing, and implementation of telemedicine technology
- Provided comprehensive training to clinical educators and skillfully administered the go-live, resulting in a successful outcome.

St. George's University *St. George's, Grenada*

Online Clinical Evaluation Exercise Project *Mar. 2019*

- Spearheaded the creating, testing, piloting, training, and executing the online objective structured clinical examination
- Led team to re-engineer OSCE exam-flow and integrated with in-house platforms, done nowhere else in the world
- Prevented organization disruptions, aided smooth online transition that *saved St. George's University an estimated 2M+ dollars*

St. George's University *St. George's, Grenada*

OSCE Management Improvement Project *Aug. 2017*

- Led OMI requirements gathering for students, faculty, and standardized patients
- Oversaw testing and implementation of curated technologies for 32 additional clinical simulation rooms
- Supported medical education delivery for 4000+ students
- Delivered successful project within a tight timeframe while ensuring optimal outcome

St. George's University *St. George's, Grenada*

B-Line Expansion Phase I Projec *Aug. 2014*

- Led the outfitting of 8 additional Clinical Examination rooms with clinical equipment, B-Line Medical equipment, and other educational supporting technologies

Academic Achievements Awards & Honors

Fellowships & Scholarships

2025	**RIT FFCEP**, Rochester Institute of Technology Future Faculty Career Exploration Scholarship	*Rochester, NY*
2025	**CRA-WP IDEALS**, Computer Research Association Grad Cohort for IDEAL Scholarship	*Denver, CO*
2024	**THRIVE**, THRIVE BLK Men in Tech. Conference Scholarship	*Fort Lauderdale, FL*
2024	**Richard Tapia**, ACM Richard Tapia Conference Scholarship	*San Diego, CA*
2024	**CRA-WP IDEALS**, Computer Research Association Grad Cohort for IDEAL Scholarship	*Minneapolis, MN*
2023	**NSF Research Traineeship**, 2023 NSF NRT Research Research Traineeship Scholarship	*Tempe, AZ*
2023	**CRA-WP IDEALS**, Computer Research Association Grad Cohort for IDEAL Scholarship	*Honolulu, HI*
2022	**NSF LINDIV Fellowship**, Linguistic Diversity Across the Lifespan Graduate Fellowship	*University Park, PA*
2022	**ICML & Black in AI**, International Conference on Machine Learning Diversity & Inclusion Scholarship	*Baltimore, MD*
2022	**ACL Conference**, Association for Computational Linguistics Diversity & Inclusion Scholarship	*Dublin, IRL*
2021	**PSU FEGR Fellowship**, Penn State University Funds for Excellence in Graduate Recruitment Fellowship	*University Park, PA*
2018	**SGU Graduate Fellowship**, St. George's University Graduate Faculty Fellowship	*St. George's, GD*
2007	**SGU Student Scholarship**, St. George's University Undergraduate Student Scholarship	*St. George's, GD*

Awards

2024	**Leadership Award**, Penn State Pan-African Professional Alliance (PAN-APA) Leadership	*University Park, US*
2018	**MPH Award**, Chancellor's List for Academic Excellence	*St. George's, GD*
2012	**Job Award**, Excellence and Dedication to Objective Structured Clinical Examination	*St. George's, GD*
2010	**B.Sc. Award**, Dean's List for Academic Excellence	*St. George's, GD*
2010	**B.Sc. Award**, Chancellor's List for Academic Excellence	*St. George's, GD*

Presentations and Invited Talks

Munich NLP — *Munich, Germany*

Invited Talk — *2025*

- Presented Beemo: Benchmark of Expert-edited Machine-generated Outputs, addressing deepfake text detection in multi-author scenarios where experts refine LLM responses for natural flow and factual correctness
- Demonstrated challenges in detecting expert-edited machine-generated texts, benchmarking 33 detector configurations across 6.5k human-written, LLM-generated, and expert-edited texts spanning creative writing to summarization tasks

Penn State, College of Information Sciences & Technology — *United States*

Invited panelist <Penn State Startup Week: Business Broker Secrets> — *Mar. 2025*

- Discussion panelist: Deepfake for social good and its application for patients with aphasia

Penn State, College of Information Sciences & Technology — *United States*

Invited panelist <Research in Information Sciences and Technology panel> — *Jan. 2025*

- Discussed my research experience in college, lab, and as a published author.
- Discussed the problem landscape, cutting-edge research, and future research direction for combating harmful text

Cohere for AI — *United States*

Invited talk <Cohere for AI guest Speaker> — *May. 2024*

- Presented research on advancing low-resource multilingual approaches in the era of artificial intelligence
- Discussed the problem landscape, cutting-edge research, and future research direction for disinformation detection

St. George's University, Department of Computers and Technology — *St. George's, Grenada*

Invited talk and panelist on <Forum on Opportunities in Emerging Technology> — *Jan. 2024*

- Exposed students to emerging technologies currently being used or explored across different fields.
- Discussed the applications and implications of some of these technologies.

EMNLP 2023, Conference on Empirical Methods in Natural Language Processing — *Sentosa, Singapore*

Main Conference Proceedings Presentation for <2023 Empirical Methods in Natural Language Processing> — *Dec. 2023*

- Presented the Paper: Fighting Fire with Fire: The Dual Role of LLMs in Crafting and Detecting Elusive Disinformation.
- Discussed the dual capacity of LLMs for offensive misuse and defensive detection of disinformation.

St. George's University, Department of Computers and Technology — *St. George's, Grenada*

Invited talk on <Artificial Intelligence and Latest AI Research> — *Nov. 2023*

- Presented on the history of AI to present and latest in AI research
- Discussed my latest research, Fighting Fire with Fire, highlighting the dual capacity of LLMs for disinformation misuse and detection.

National Science Foundation Annual Meeting 2023 *Tempe, AZ*

Poster Presentation for < National Science Foundation Research Traineeship> *Oct. 2023*

- Delivered a poster presentation on integrating linguistic, psychological, and AI approaches for native accent variant processing on human language technology

National AI Institute for Exceptional Education *University Park, PA*

Invited Talk for < National Science Foundation and the Institute of Education Sciences AI Research Institutes> *Sep. 2023*

- Delivered a talk on AI Transforming Education for Children with Speech and Language Pathologies

Pan-APA 6th Annual Conference *University Park, PA*

Conference Presentation for <BUILDING A RESILIENT FUTURE FOR AFRICA IN THE POST COVID WORLD> *Apr. 2023*

- Introduced the first case study on detecting false claims in the Caribbean islands, a low-resource language region.
- Discussed the challenges and future research directions for combating multilingual long-tail fake news.

Computing Research Association Grad Cohort Workshop for IDEALS Skills *Honolulu, HI*

Lightening Talk for <2023 Grad Cohort for IDEALS Lightning Talk> *Mar. 2023*

- Delivered a lightning talk on Detecting False Claims in Low-Resource Regions: A Case Study of Caribbean Islands

ACl 2022, 60th Annual Meeting of the Association for Computational Linguistics *Dublin, IRL*

Workshop Presentation <Combating Online Hostile Posts in Regional Languages during Emergency Situation> *May. 2022*

- Presented the Paper: Detecting False Claims in Low-Resource Regions: A Case Study of Caribbean Islands
- Discussed future work on low-resource language processing to Combat COVID-19 Related Online Hostile Content

Service and Leadership

12th Mid-Atlantic Student Colloquium on Speech, Language & Learning (MASC-SLL) *University Park, PA*

Organizing Committee Member *August. 2025 - PRESENT*

- Assisted Conference Chairs with abstracts and paper submission
- Participated in the presentation, abstract, and manuscript review processes
- Assisted with organization and logistics of conference

Academic Conference Reviewer *University Park, US*

Conference Reviewer *Jan. 2024 - 2025*

- 2024 ACL conference review

Workshop on Detecting AI-Generated Content at COLING 2025 *Abu Dhabi, UAE*

Program Committee Member *August. 2024 - PRESENT*

- Assisted Conference Chairs in soliciting abstracts
- Participated in the presentation, abstract, and manuscript review processes
- Served as Session Chair as requested by Conference Chairs

College of Information Science and Technology Committee *University Park, PA*

Graduate Student Bill of Rights Committee *May 2024 - August 2024*

- Met with keystroke holders
- Developed students' bill of rights

Empirical Methods in Natural Language Processing *University Park, PA*

EMNLP'23 Conference Volunteer *Aug. 2023*

- Provided technical support for the main conference
- Provided poster presentations support and coordination
- Assisted with participant registration and check-in

Penn State Pan-African Professional Alliance *University Park, PA*

IT Officer *Aug. 2023 - PRESENT*

- Set IT goals and lead initiatives
- Managed organization website
- Directed IT operations for organization's events and activities
- Supported organization's president and executive members

ENVISION: STEM Career Day Supporting Young Women *University Park, PA*

Instructor *Nov. 2022 - Aug. 2023*

- Led LinDiv outreach fellowship activities
- Prepared presentation material and organize training

Graduate Student Association in Information Sciences & Technology — *University Park, PA*

President — *Nov. 2022 - Aug. 2023*

- Led an executive team of 5 members swerving 200+ graduate students at Penn State
- Revised organization's mission and vision towards strategic change
- Conducted mass mixed-method student survey to assess needs, gaps, and college climate
- Analyzed data using thematic analysis and descriptive statistics, and generate students' feedback report
- Advocated for students by presenting findings to the college deans, program directors, and administrative staff
- Successfully effected change in student academics, engagement, and experience for 200+ students

NSF LINDIV Graduate Research Training Program — *University Park, PA*

Outreach Coordinator — *Aug. 2022 - Jan. 2023*

- Coordinated outreach for the NSF LINDIV Graduate research training program 2022
- Led a team of 7 to execute a STEM career day workshop, ENVISION, supporting young women

Grenada Red Cross — *St. George's, GD*

IT Officer — *Jul. 2020 - Jun. 2021*

- Led information technology initiatives
- Mentored and supervise interns
- Oversaw web development
- Supported the president

Fit For Life: Youth Development Program — *St. George's, GD*

Director and Co-founder — *Jun. 2010 - Jun. 2017*

- Partnered with Fit For Life to develop a free youth development program for marginalized youths
- Mentored youths ages 7-27 to develop leadership, social and professional skills
- Trained next-generation dancers and youth leaders

Mentorship

Human AI in Action Research - Dr. Betsy Campbell — *University Park, PA*

IST Undergraduate Students — *Jan. 2025 - PRESENT*

- Gracy Juanita Franco Prasanna - undergraduate - AI for Social Good using Deepfake Project
- Colby James Gleason - undergraduate - Image emotions and sentiment classifications Project
- Jain Pranav - undergraduate - Boston Dynamics Spot robot Simulation project
- Michael Wayes Charles - Undergraduate - Data Sensorium

PIKE Research Lab - Dr. Dongwon Lee — *University Park, PA*

Millennium Scholar — *August. 2023 - PRESENT*

- Kendall Reed II - undergraduate - Multilingual NLP @ PIKE Research Lab
- Lia Carin Djaouga - undergraduate - Multilingual NLP @ PIKE Research Lab

Press Coverage

Featured Articles

2025 **St. George's University**, <From SGU to the Frontiers of AI: Jason Lucas' Journey of Purpose, ...> — *St. George's, GD*

2025 **Penn State IST iConnect**, <Leadership Examples in Tech Rarely Look Like Me> — *University Park, PA*

2025 **Penn State News**, <Penn State Connections Lead Doctoral Student to Interdisciplinary College of IST> — *University Park, PA*

News Interview

2024 **WXXI News**, <Artificial Intelligence in Journalism: How is it Being used now? What's Coming Next?> — *Rochester, NY*

References

Ph.D Advisor and Professor - Dongwon Lee, Ph.D., The Pennsylvania State University
Phone: +1(814) 865-0687
Email: dongwon@psu.edu
Profile: https://pike.psu.edu/projects.html

Ph.D Mentor - Adaku Uchendu, Ph.D., MIT Lincoln Lab
Phone: +1(301) 326-8363
Email: adaku.uchendu@ll.mit.edu
Profile: https://adauchendu.github.io/publications/

Associate Teaching Professor - Betsy Campbell, Ph.D., The Pennsylvania State University
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