# Adam Coscia

HCC PhD Candidate @ Georgia Tech  ●  Email: acoscia125@gmail.com  ●  Website: https://adamcoscia.com

## EDUCATION

### Ph.D. in Human-Centered Computing
Atlanta, GA
Georgia Institute of Technology
Expected May 2026
*Dissertation:* **Visual Analytics for Trustworthy Large Language Models in Education**
*Advisor:* Dr. Alex Endert
*Committee:* Dr. Duen Horng (Polo) Chau, Dr. Cindy Bearfield-Xiong, Dr. Yalong Yang, Dr. Scott Crossley

### B.S. in Physics
Hoboken, NJ
Stevens Institute of Technology
May 2020
*Minors:* Mathematics, Computer Science, *GPA:* 3.98/4.00, *Achievements:* Pinnacle Scholars, First in Class (Physics)

## RESEARCH EXPERIENCE

### Georgia Institute of Technology
Atlanta, GA
Graduate Research Assistant  ●  *Visual Analytics Lab*
2020—present
*Advisor:* **Alex Endert**
Developing interactive visual analytics tools that help people make sense of data by combining information visualization, machine learning, and human-computer interaction.

### MIT Lincoln Laboratory
Lexington, MA
Artificial Intelligence Research Lead  ●  *Artificial Intelligence Group*
Summer 2025
*Advisors:* **Ho Chit Siu, Rohan Paleja**
Developing novel visual analytics interfaces that enable human-in-the-loop decision-making and guidance in human-machine teaming scenarios.

### Adobe Research
San Jose, CA
Machine Learning Research Lead  ●  *AI Experiences Lab*
Summer 2024
*Advisors:* **Shunan Guo, Eunyee Koh**
Built a novel chat interface with large language models (LLMs) to improve sensemaking of conversational LLM responses for everyday users using LLM-powered Adobe products.

### NASA Jet Propulsion Laboratory (JPL)
Pasadena, CA
Machine Learning Research Lead  ●  *Human-Interfaces Group*
Summer 2023
*Advisors:* **Scott Davidoff, Tiago Vaquero**
Developed automated science planning capabilities for planetary missions to support multi-instrument and team-driven science using a novel demonstration paradigm.

### NASA Jet Propulsion Laboratory (JPL)
Pasadena, CA
Computer Science Lead  ●  *Data to Discovery Program*
Summer 2021
*Advisors:* **Scott Davidoff, Santiago Lombeyda, Hillary Mushkin, Maggie Hendrie**
Built interactive data visualization combining linked 2D maps and 3D visualizations of taxa and geochemical values in sediment cores collected from the sea floor.

### Stevens Institute of Technology
Hoboken, NJ
Undergraduate Research Assistant  ●  *School of Information Systems and Architecture*
2018—2020
*Advisors:* **Aron Lindberg, Amir Gandomi**
Developed statistical model in Python for connecting evolutionary trajectories of digital artifacts to performance outcomes in online communities.

**Katholieke Universiteit Leuven**                                      Leuven, Belgium

Visiting Research Scholar  ●  *Department of Physics and Astronomy*         Summer 2017

*Advisors:* **Lino da Costa Pereira, Tiago Abel de Lemos Lima**

Built data visualization interface in Python for managing simulations of ion channeling in single crystals, to be used in ion beam analysis of topological materials.

## INDUSTRY EXPERIENCE

**New York Life Insurance Company**                                       New York, NY

Machine Learning / Operations Intern  ●  *Center for Data Science and Artificial Intelligence*         Summer 2020

*Supervisor:* **Paul Janis**

Engineered multiple feature extraction pipelines interfaced by Domino platform and integrated with existing Hadoop infrastructure. Produced model monitoring metric reports for stakeholders and data science team.

**New York Life Insurance Company**                                       New York, NY

Data Platform Engineering Intern  ●  *Center for Data Science and Analytics*         Summer 2019

*Supervisor:* **Paul Janis**

Built various scalable programs and data-handling procedures for multiple teams to leverage complex, low-level data lake tools with efficient, cost-effective, and easy-to-use interfaces.

## AWARDS and HONORS

**Inducted into Sigma Xi Scientific Research Honor Society**                          2025

Inducted as a lifetime member

**Best Poster Award**, *CRIDC 2025*                                                    2025

For *"Incorporating Knowledge Graphs and Large Language Models into Visual Text Analysis Tools"*

**Foley Scholar Award Finalist (top 8)**, *Georgia Tech*                               2024

Awarded to top graduate students shaping the future of how people interact with and value technology.

**Best Poster Award**, *CRIDC 2023*                                                    2023

For *"KnowledgeVIS: Visualizing What Language Models Have Learned"*

**Best Poster Award**, *CRIDC 2021*                                                    2021

For *"Lumos: Increasing Awareness of Biases during Visual Data Analysis"*

**President's Fellowship**, *Georgia Tech*                                             2020

Four-year semesterly stipend award; selected upon admission from top 10% of applicant pool.

**Alfred M. Mayer Prize**, *Stevens Institute of Technology*                           2020

Awarded to senior ranked first in all physics courses taken during undergraduate career.

**Inducted into Sigma Pi Sigma Physics Honor Society**                                2019

Inducted as a lifetime member by the American Institute of Physics

**Distinguished Teaching Assistant**, *Stevens Institute of Technology*                2018

Awarded to student faculty member nominated for creating outstanding classroom environment.

**Presidential Scholarship**, *Stevens Institute of Technology*                        2016

Four-year, half-tuition award; selected for academic excellence in high school.

## PUBLICATIONS

### Journal Articles

1. **KnowledgeVIS: Interpreting Language Models by Comparing Fill-in-the-Blank Prompts**
   Adam Coscia and Alex Endert
   *IEEE Trans. on Visualization and Computer Graphics (**TVCG**), 2024*

2. **Preliminary Guidelines for Combining Data Integration and Visual Data Analysis**
   Adam Coscia, Ashley Suh, Remco Chang, and Alex Endert
   *IEEE Trans. on Visualization and Computer Graphics (**TVCG**), 2024*

### Conference Proceedings

1. **DraftMarks: Enhancing Transparency in Human-AI Co-Writing Through Interactive Skeuomorphic Process Traces**
   Momin Siddiqui, Nikki Nasseri, Adam Coscia, Roy Pea, and Hariharan Subramonyam
   *ACM Conference on Human Factors in Computing Systems (**CHI**), Barcelona, Spain, 2026*

2. **VisPile: A Visual Analytics System for Analyzing Multiple Text Documents with Large Language Models and Knowledge Graphs**
   Adam Coscia and Alex Endert
   *The 59th Hawaii International Conference on System Sciences (**HICSS**), Lahaina, Hawai'i, USA, 2026*

3. **OnGoal: Tracking and Visualizing Conversational Goals in Multi-Turn Dialogue with Large Language Models**
   Adam Coscia, Shunan Guo, Eunyee Koh, and Alex Endert
   *ACM Symposium on User Interface Software and Technology (**UIST**), Busan, Republic of Korea, 2025*

4. **Visualizing the Provenance of Intelligent Tutor Interactions towards Responsive Pedagogy**
   Grace Guo, Aishwarya Mudgal Sunil Kumar, Adit Gupta, Adam Coscia, Chris MacLellan, and Alex Endert
   *International Conference on Advanced Visual Interfaces (**AVI**), Arenzano (Genoa), Italy, 2024*

5. **DeepSee: Multidimensional Visualizations of Seabed Ecosystems**
   Adam Coscia, Haley M. Sapers, Noah Deutsch, Malika Khurana, John S. Magyar, Sergio A. Parra, Daniel R. Utter, Rebecca L. Wipfler, David W. Caress, Eric J. Martin, Jennifer B. Paduan, Maggie Hendrie, Santiago Lombeyda, Hillary Mushkin, Alex Endert, Scott Davidoff, and Victoria J. Orphan
   *ACM Conference on Human Factors in Computing Systems (**CHI**), Honolulu, Hawai'i, USA, 2024*

6. **iScore: Visual Analytics for Interpreting How Language Models Automatically Score Summaries**
   Adam Coscia, Langdon Holmes, Wesley Morris, Joon Suh Choi, Scott Crossley, and Alex Endert
   *ACM Conference on Intelligent User Interfaces (**IUI**), Greenville, South Carolina, USA, 2024*

7. **Lumos: Increasing Awareness of Analytic Behavior during Visual Data Analysis**
   Arpit Narechania, Adam Coscia, Emily Wall, and Alex Endert
   *IEEE Trans. on Visualization and Computer Graphics (Proc. **IEEE VIS** 2021), 2022*

8. **Left, Right, and Gender: Exploring Interaction Traces to Mitigate Human Biases**
   Emily Wall, Arpit Narechania, Adam Coscia, Jamal Paden, and Alex Endert
   *IEEE Trans. on Visualization and Computer Graphics (Proc. **IEEE VIS** 2021), 2022*

Workshop Papers

1. **LLM Prompt Design and Evaluation for Educational Applications**
   Langdon Holmes, <u>Adam Coscia</u>, Scott Crossley, Joon Suh Choi, and Wesley Morris
   *Workshop on Epistemics and Decision-Making in AI-Supported Education @ The 26th International Conference on Artificial Intelligence in Education (**AIED**), Palermo, Italy, 2025*

2. **Toward a Bias-Aware Future for Mixed-Initiative Visual Analytics**
   <u>Adam Coscia</u>, Duen Horng (Polo) Chau, and Alex Endert
   *Workshop on TRust and EXpertise in Visual Analytics @ **IEEE VIS** 2020*


Posters

1. **Incorporating Knowledge Graphs and Large Language Models into Visual Text Analysis Tools**
   <u>Adam Coscia</u>, Alex Endert, Liz Richerson, Sue Mi K., Stephen S., and Tim S.
   a. *Career, Research, and Innovation Development Conference (**CRIDC**), Atlanta, GA, USA, 2025.* **Best Poster Award (top 5%)**
   b. *2024 LAS Research Symposium, Raleigh, NC, USA, 2024.*

2. **iScore: Visual Analytics for Interpreting How Language Models Automatically Score Summaries**
   <u>Adam Coscia</u>, Langdon Holmes, Wesley Morris, Joon Suh Choi, Scott Crossley, and Alex Endert
   a. *Career, Research, and Innovation Development Conference (**CRIDC**), Atlanta, GA, USA, 2024*
   b. *C21U Symposium on Generative Futures: Revolutionizing Learning with Artificial Intelligence, Atlanta, GA, USA, 2023*

3. **KnowledgeVIS: Visualizing What Language Models Have Learned**
   <u>Adam Coscia</u> and Alex Endert
   *Career, Research, and Innovation Development Conference (**CRIDC**), Atlanta, GA, USA, 2023.* **Best Poster Award (top 5%)**

4. **Lumos: Increasing Awareness of Biases during Visual Data Analysis**
   Arpit Narechania, <u>Adam Coscia</u>, Emily Wall, and Alex Endert
   *Career, Research, and Innovation Development Conference (**CRIDC**), Atlanta, GA, USA, 2021.* **Best Poster Award (top 5%)**

5. **Correlating Long-Term Innovation with Success in Career Progression**
   <u>Adam Coscia</u> and Aron Lindberg
   a. *Business Intelligence & Analytics (BI&A) Corporate Networking Event, Hoboken, NJ, USA, 2018*
   b. *Pinnacle Scholar Summer Research Poster Session, Hoboken, NJ, USA, 2018*


## INVITED TALKS and DEMOS

### Integrating AI into Visual Analytics

| | |
|---|---|
| Brown Visual Computing Seminar, *Brown University* | October 2025 |
| *University of Massachusetts Boston* | October 2025 |
| *University of Massachusetts Amherst* | October 2025 |
| *Johns Hopkins University* | October 2025 |
| *MIT Lincoln Laboratory* | July 2025 |

### Visual Analytics for Trustworthy Large Language Models in Education

| | |
|---|---|
| *Tufts University* | July 2025 |
| Institute for People and Technology (IPAT), *Georgia Institute of Technology* | April 2025 |

NSF AI Institute AI-ALOE Showcase, *Georgia Institute of Technology*                    April 2024

**KnowledgeVIS: Interpreting Language Models by Comparing Fill-in-the-Blank Prompts**
Invited Journal Paper Talk, *IEEE Visualization Conference (VIS)*                    October 2024

**Preliminary Guidelines for Combining Data Integration and Visual Data Analysis**
Invited Journal Paper Talk, *IEEE Visualization Conference (VIS)*                    October 2024
**Visualizing What Large Language Models Have Learned**
GVU Demo Day, *Georgia Institute of Technology*                    March 2023

## TEACHING

**Georgia Institute of Technology**                    Atlanta, GA
Graduate Teaching Assistant  ●  *CS 6730: Data Visualization Principles*                    Fall 2022, Fall 2025
*Instructor:* **Alex Endert**
Assisted professor with lectures, grading, team projects; held office hours for student support.

**Stevens Institute of Technology**                    Hoboken, NJ
Course Assistant  ●  *PEP 112S: Honors Electricity & Magnetism*                    semesterly, 2018—2020
*Instructor:* **Christopher Search**
Assisted professor with grading, reviews, worksheets, and testing material preparation.

**Stevens Institute of Technology**                    Hoboken, NJ
Course Assistant  ●  *PEP 112: Electricity & Magnetism*                    semesterly, 2018—2020
*Instructor:* **Robert Pastore**
Ran 2-3 hour exam reviews for an average class size of 200 students.

**Stevens Institute of Technology**                    Hoboken, NJ
Teaching Assistant  ●  *CS 105: Intro to Scientific Computing*                    semesterly, 2017—2020
*Instructor:* **Dimitrios Damopoulos**
Taught 15-25 students in weekly labs on CS concepts using MATLAB; helped develop course materials.

## MENTORSHIP

Research

**Sujata Duwal**                    2025—2026
Ph.D. in Human-Centered Computing, *Georgia Institute of Technology*
Studying trust in decision-making when visualizing LLMs used in education.

**Jennifer Chandran**                    2025
M.S. in Human-Computer Interaction, *Georgia Institute of Technology*
Creating a new LLM-augmented pipeline that automatically transforms document sets for data analysis.

**Ben Klassen**                    2024—2025
M.S. in Data Science & Analytics, *Georgia Institute of Technology*
Developed new data science tools that leverage LLMs to enhance intelligence in classrooms and sports analytics.

**Sean Ru**                    2024
M.S. in Computer Science, *Georgia Institute of Technology*
Created LLM-based algorithms that embed data visualizations for improved searchability.

## Programs & Outreach

**Georgia Institute of Technology**  Atlanta, GA

Mentor ● *IC Buddies Mentorship Program*  2025

Paired one-on-one with a graduate student, helping them adjust to grad school. Introduced them to faculty connections, discussed graduate research opportunities, and provided guidance on time/workload management.

**Encouraging Women Across All Borders (EWAAB)**  New York, NY

Mentor ● *Beyond Mentorship Program*  2022—2023

Connected monthly one-on-one with students to discuss professional topics ranging from general professional advice, to applying for job opportunities, to discovering new fields of study.

**Stevens Institute of Technology**  Hoboken, NJ

Mentor ● *Pinnacle Scholar Peer Advisor Program*  2017—2019

Mentored 4-6 honors freshman each academic year representing different majors. Provided guidance on internships, classes, international experiences, campus resources. Took students on excursions into Hoboken.

## GRANTS and FUNDING

**Agentic Visual Data Analysis: Knowledge Graph Synthesis using LLMs**  2026

Laboratory for Analytic Sciences, *North Carolina State University*

Co-PI: **Alex Endert**

One-year funding (full tuition + graduate stipend)

**Enabling Continuous Analytic Dialogues in Visual Analytics with LLMs and Knowledge Graphs**  2025

Laboratory for Analytic Sciences, *North Carolina State University*

Co-PI: **Alex Endert**

One-year funding (full tuition + graduate stipend)

**Incorporating Knowledge Graphs and Large Language Models into Visual Text Analysis Tools**  2024

Laboratory for Analytic Sciences, *North Carolina State University*

Co-PI: **Alex Endert**

One-year funding (full tuition + graduate stipend)

**Correlating Long-Term Innovation with Success in Career Progression**  2018

Pinnacle Scholar Summer Institutional Research Program, *Stevens Institute of Technology*

Co-PI: **Aron Lindberg**

Funded $5000 for research expenses and living stipend

**Managing Simulations of Ion Channeling in Single Crystals**  2017

International Summer Abroad Internship Program, *Katholieke Universiteit Leuven*

Co-PI: **Lino da Costa Pereira**

Funded €3000 from Katholieke Universiteit Leuven and $5000 from Stevens Institute of Technology

## SERVICE and ASSOCIATIONS

**Professional Societies**

Member, Sigma Xi Scientific Research Honor Society (**Sigma Xi**)  since 2025

Member, IEEE Computer Society (**IEEE**)  since 2025

Member, Association for Computing Machinery (**ACM**)  since 2023

Member, Special Interest Group on Computer-Human Interaction (**SIGCHI**)  since 2023

Member, Sigma Pi Sigma (**SPS**) Physics Honor Society  Lifetime, since 2019

Member, American Physical Society (**APS**)                                                    2016—2020

**Conference Program Committee**
IEEE Pacific Visualization Conference (**PacificVis**) Short Papers                             2026

**Conference Organizing Committee**
IEEE Visualization Conference (**VIS**)                                                        2026

**Conference Student Volunteer**
ACM Symposium on User Interface Software and Technology (**UIST**)                              2025

**Reviewer**
IEEE Visualization Conference (**VIS**)                                                   2022—2025
IEEE Pacific Visualization Conference (**PacificVis**)                                    2025—2026
IEEE Transactions on Visualization and Graphics (**TVCG**)                                 2022, 2025
EuroVis Conference (**EuroVis**)                                                          2023—2026
ACM Conference on Human Factors in Computing Systems (**CHI**)                            2024—2026
ACM Conference on Computer-Supported Cooperative Work & Social Computing (**CSCW**)            2025
ACM Conference on Intelligent User Interfaces (**IUI**)                                        2026
ACM Symposium on User Interface Software and Technology (**UIST**)                             2025
ACM Transactions on Interactive Intelligent Systems (**TIIS**)                                2024
Computers and Graphics (**C&G**)                                                              2025
Visual Informatics                                                                            2025

**Special recognition for exceptional reviews**
- IEEE VIS 2023
- ACM CHI 2024, 2025
- ACM IUI 2026

## PRESS

1. **CRIDC 2025 Awards $40,000 to competition winners**
   *Brittani Hill, Georgia Tech Office of Graduate and Postdoctoral Education*, February 2025
   *https://grad.gatech.edu/news/cridc-2025-awards-40000-competition-winners*

2. **Foley Scholars 2024 Winners and Finalists**
   *Walter Rich, Georgia Tech Office of Research*, November 2024
   *https://research.gatech.edu/foley-scholars-2024-winners-and-finalists*

3. **Visualization Tool Helps Oceanographers Predict Sediment Sample Hotspots**
   *Nathan Deen, Georgia Tech School of Interactive Computing*, July 2024
   *https://www.cc.gatech.edu/news/visualization-tool-helps-oceanographers-predict-sediment-sample-hotspots*

4. **Adam Coscia Presents Visualizations for Interpreting Large Language Models at GVU Center Research Showcase**
   *NSF AI Institute for Adult Learning in Online Education (AI-ALOE)*, April 2023
   *https://aialoe.org/coscia-presents-visualizations-for-interpreting-large-language-models/*

5. **DeepSEE: A Virtual Window Under the Waves**
   *Serg Parra, Schmidt Ocean Institute*, November 2021
   *https://schmidtocean.org/cruise-log-post/deepsee-a-virtual-window-under-the-waves/*