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**
Achievements: GPA: 3.98/4.00, Pinnacle Scholars program, Ranked 1st in physics class of 2020

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 Sui, 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* — 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 (CDSA)* 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

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. **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.
2. **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.
3. **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
4. **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.
5. **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. **Toward a Bias-Aware Future for Mixed-Initiative Visual Analytics**
   Adam Coscia, 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**
   Adam Coscia, 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**
   Adam Coscia, 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**
   Adam Coscia 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, Adam Coscia, 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**
   Adam Coscia 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

Visual Analytics for Trustworthy Large Language Models in Education
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
Instructor: **Alex Endert**
Assisted professor with grading, reviews, worksheets, and testing material preparation.

Stevens Institute of Technology — Hoboken, NJ
Course Assistant ● *PEP 112S: Honors Electricity & Magnetism* — 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* — 2018—2020
Instructor: **Robert Pastore**
Ran exam reviews each semester for an average class size of 200 students.

Stevens Institute of Technology Hoboken, NJ
Teaching Assistant ● *CS 105: Intro to Scientific Computing* 2017—2020
Instructor: **Dimitrios Damopoulos**
Instructed 15-25 students weekly via in-person labs using MATLAB assignments designed to teach basic scientific computing paradigms. Developed course material with instructor.

MENTORSHIP

Individual

Ben Klassen 2024—2025
M.S. in Data Science + Analytic @ Georgia Institute of Technology
Developing novel data science tools for leveraging LLMs 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.

Outreach Programs

Encouraging Women Across All Borders (EWAAB) New York, NY
Mentor ● *Beyond Mentorship Program* 2022—2023
Connected one-on-one with students to discuss professional topics ranging from general professional advice, to applying for opportunities, to discovering new fields.

Stevens Institute of Technology Hoboken, NJ
Mentor ● *Pinnacle Scholar Peer Advisor Program* 2017—2019
Mentored 4-6 Pinnacle Scholar freshman representing different majors each academic year. Provided guidance on internships, classes, international experiences, campus resources. Took students on excursions into Hoboken.

GRANTS and FUNDING

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
Co-PI: **Aron Lindberg**
Funded $5000 from Stevens Institute of Technology

Managing Simulations of Ion Channeling in Single Crystals 2017
International Summer Abroad Internship Program
Co-PI: **Lino da Costa Pereira**
Funded €3000 from Katholieke Universiteit Leuven; funded $5000 from Stevens Institute of Technology

SERVICE and ASSOCIATIONS

Reviewer

IEEE Visualization Conference (**VIS**)	2022—2025
IEEE Pacific Visualization Conference (**PacificVis**)	2025
IEEE Transactions on Visualization and Graphics (**TVCG**)	2022
EuroVis Conference (**EuroVis**)	2023—2025
ACM Conference on Human Factors in Computing Systems (**CHI**)	2024—2025
ACM Conference on Computer-Supported Cooperative Work & Social Computing (**CSCW**)	2025
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

Member

Association for Computing Machinery (**ACM**)	since 2023
Special Interest Group on Computer-Human Interaction (**SIGCHI**)	since 2023
Sigma Pi Sigma (**SPS**) Physics Honor Society	Lifetime, since 2019
American Physical Society (**APS**)	2016—2020

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/