AMITH ANANTHRAM

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Research Interests

Architectures, pre/post-training, personalization and evaluation methods for image and video understanding in LLMs. The strengths and limitations of language-mediated vision.

Education

Columbia University (New York, NY) expected completion: 9/2026
- PhD in Computer Science (NLP/CV), advised by Professor Kathleen McKeown (GPA: 4.0/4.0)

Columbia University (New York, NY) 2020
- MS in Computer Science, with a concentration in NLP (GPA: 4.11/4.0)

Dartmouth College (Hanover, NH) 2014
- BA (GPA: 3.63/4.0, *Cum Laude*)
- *Majors (3)*: Computer Science, Classical Languages & Literature, Economics

Thomas Jefferson HS for Science and Technology (Alexandria, VA) 2010

Publications

[1] **Amith Ananthram**, Elias Stengel-Eskin, Lorena A. Bradford, Julia Demarest, Adam Purvis, Keith Krut, Rina Elster Pantalony, Mohit Bansal, Kathleen McKeown. PoSh: Using Scene Graphs to Guide LLMs-as-a-Judge for Detailed Image Descriptions. *ICLR 2026.*

[2] Ananya Sahu, **Amith Ananthram**, Kathleen McKeown. Mining Contextualized Visual Associations from Images for Creativity Understanding. *Best long paper at INLG 2025.*

[3] **Amith Ananthram**, Elias Stengel-Eskin, Mohit Bansal, Kathleen McKeown. See It from My Perspective: How Language Affects Cultural Bias in Image Understanding. *ICLR 2025.*

[4] Nicholas Deas, Blake Vente, **Amith Ananthram**, Jessica A. Grieser, Desmond Patton, Shana Kleiner, James Shepard, Kathleen McKeown. Data Caricatures: On the Representation of African American Language in Pretraining Corpora. *ACL 2025*.

[5] Zhaoyuan Deng, **Amith Ananthram**, Kathleen McKeown. Enhancing Multimodal Affective Analysis with Learned Live Comment Features. *AAAI 2025.*

[6] Todd Morrill, Zhaoyuan Deng, Yanda Chen, **Amith Ananthram**, Colin Wayne Leach, Kathleen McKeown. Social Orientation: A New Feature for Dialogue Analysis. *LREC-COLING 2024.*

[7] **Amith Ananthram**, Olivia Winn, Smaranda Muresan. FeelingBlue: a Corpus for Understanding the Emotional Connotation of Color in Context. *TACL 2023, presented at ACL 2023.*

[8] Gengyu Wang, Kate Harwood, **Amith Ananthram**, Melanie Subbiah, Kathleen McKeown. Check-COVID: a Corpus for Fact-Checking COVID-19 Misinformation with Scientific Evidence. *ACL 2023 (Findings).*

[9] Anish Saha, **Amith Ananthram**, Emily Allaway, Heng Ji, Kathleen McKeown. Seeded Hierarchical Clustering for Expert-Crafted Taxonomies. *EMNLP 2022 (Findings)*.

[10] **Amith Ananthram**, Emily Allaway, Kathleen McKeown. Event-Guided Denoising for Multilingual Relation Learning. *COLING 2020.*

Work Experience

Stripe – San Francisco, CA, *Software Engineer* (*Levels 2 – 3)* Feb 2018 – Aug 2019

- Technical lead for rolling cash reserves on merchant accounts, a way for Stripe to hold a fixed percentage of merchant processing volume on a rolling basis to control credit risk. Led design and implementation and worked cross-functionally to ensure our solution behaved correctly across Stripe's product offerings; built systems to monitor its execution (Ruby, Spark, MongoDB)
- Designed and got buy-in for a redesign of our merchant lifecycle state machine to allow the declarative definition of merchant risk policy. Instead of embedding business logic deep within our code, this system would extract the logic into human readable and editable rules, allowing operations teams to manage the definition of their policies without engineering involvement
- One of two contributors on a 6-month long effort to build a manual assignment system to manage risk-related merchant reviews; in addition to dozens of new backend and frontend flows, designed a workload expectation model to predict required capacity (Ruby, Javascript, React, MongoDB)
- Optimized our MongoDB oplog tailers, speeding up the indexing of their contents into an Elasticsearch cluster; introduced toggles to improve resilience to spikes in oplog volume
- Managed a summer intern; gathered requirements for monitoring news related to our merchants to detect cases of financial distress and oversaw its subsequent technical implementation

Wealthfront – Redwood City, CA, *Software Engineer (Levels 1 – 3)* Aug 2014 – Oct 2017

- Received an annual "Top 10%" performance equity award for 2016
- Technical lead for Advanced Indexing, a three-month long project staffed with 6 other full-stack engineers. Coordinated across functions and ensured that product and research requirements were translated into clear, correct technical specs. Built a new framework to backtest our production code, oversaw the architecture of critical pieces of infrastructure, ensured team members met project milestones and presented status updates to our executive team (Java, R)
- Pitched and implemented an infrastructure project to reduce our daily cash exposure when trading client accounts, resulting in significantly reduced liability due to trading failures (Java, MySQL)
- Diagnosed and fixed choke points in our trading pipeline, yielding 20x speed ups (Java, MySQL)
- Second developer on College Savings Plan (529), a yearlong project; worked closely with third parties to develop new integrations and architected numerous subsystems with an emphasis on fault-tolerant design. Built an integration-testing framework used by the entire team (Java, MySQL)
- Core contributor on Selling Plan, a product that sells down concentrated stock positions: worked cross-functionally with product, frontend and mobile to design and implement a clear API for eventual public release. Expanded trading to handle multiple share classes. (Java, MySQL)
- Architected and guided the implementation of four intern projects that included real-time exception attribution through Git and the calculation of our management fees offline with Spark (Java, Spark)

Reviewing

- COLING 2025, ACL ARR 2025 February, ACL ARR 2025 July, ICLR 2026, EACL SRW 2026, ACL ARR 2026 February

Teaching Experience

- *Fall 2021*: I was a TA for Professor McKeown's NLP course at Columbia
- *Fall 2022*: I was head TA for Professor McKeown's seminar on language generation at Columbia

Skills

- *Technologies*: Python (PyTorch, SciKitLearn, HuggingFace, DeepSpeed, vllm), Spark, Kaldi, Ruby, Java (Guice, Hibernate), MongoDB, MySQL, Postgres, Javascript (React), Elasticsearch