## **AMITH ANANTHRAM**

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### **Education**

Columbia University (New York, NY)

expected completion: 2026

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

• 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 High School 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. <u>PoSh: Using Scene Graphs to Guide LLMs-as-a-Judge for Detailed Image Descriptions</u>. *Currently under submission*.
- [2] Ananya Sahu, **Amith Ananthram**, Kathleen McKeown. <u>Mining Contextualized Visual Associations</u> from Images for Creativity Understanding. Best long paper at INLG 2025.
- [3] **Amith Ananthram**, Elias Stengel-Eskin, Mohit Bansal, Kathleen McKeown. <u>See It from My</u> 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. <u>Data Caricatures: On the Representation of African American Language in Pretraining Corpora. *ACL 2025*.</u>
- [5] Zhaoyuan Deng, **Amith Ananthram**, Kathleen McKeown. <u>Enhancing Multimodal Affective Analysis</u> 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. <u>FeelingBlue: a Corpus for Understanding the Emotional Connotation of Color in Context</u>. *TACL 2023, presented at ACL 2023.*
- [8] Gengyu Wang, Kate Harwood, **Amith Ananthram**, Melanie Subbiah, Kathleen McKeown. <u>Check-COVID: a Corpus for Fact-Checking COVID-19 Misinformation with Scientific Evidence</u>. *ACL* 2023 (Findings).
- [9] Anish Saha, **Amith Ananthram**, Emily Allaway, Heng Ji, Kathleen McKeown. <u>Seeded Hierarchical</u> Clustering for Expert-Crafted Taxonomies. *EMNLP 2022 (Findings)*.
- [10] **Amith Ananthram**, Emily Allaway, Kathleen McKeown. <u>Event-Guided Denoising for Multilingual Relation Learning</u>. *COLING 2020.*

# Work Experience

**Stripe** – San Francisco, CA, *Software Engineer (Levels 2 – 3)* 

Feb 2018 – Aug 2019

I designed and implemented rolling cash reserves for merchant accounts, a way for Stripe to hold
a percentage of processing volume to better control our credit risk. As the technical lead, I worked
cross-functionally with other teams to ensure our solution behaved correctly across Stripe's wide
and diverse product offerings and built systems to monitor its execution (Ruby, Spark, MongoDB)

- I designed and got buy-in for an extension to our merchant lifecycle state machine to allow the
  declarative definition of merchant risk policy; instead of embedding obscure 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 (resulting in a clearly auditable paper trail)
- I was one of two contributors on a 6-month long effort to build a manual review assignment system, allowing us to manage risk-related merchant reviews; in addition to several dozen new backend and frontend flows, I designed a workload expectation model that predicted required capacity (Ruby, Javascript, React, MongoDB)
- I optimized the behavior of our MongoDB oplog tailers, speeding up the indexing of their contents into Elasticsearch; I also introduced toggles that increased resilience to spikes in oplog volume
- I was the manager for a summer intern; in that capacity, I gathered requirements for monitoring news related to our merchants to detect financial distress and oversaw its implementation

**Wealthfront** – Redwood City, CA, *Software Engineer (Levels 1 – 3)* 

Aug 2014 – Oct 2017

- I received an annual "Top 10%" performance equity award for 2016.
- I was the technical lead for Advanced Indexing, a three-month long project staffed with 6 other full-stack engineers. I was responsible for coordinating among the various functions and ensuring that product and research requirements were translated into clear, correct technical specs. I built a new framework that allowed us 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)
- I pitched and implemented a project to reduce our daily cash exposure when trading client accounts, resulting in significantly reduced liability in the case of trading failures. (Java, MySQL)
- I identified and fixed choke points in our trading pipeline, resulting in 20x speedups. (Java, MySQL)
- Selling Plan, a product that sells down concentrated stock positions: I worked cross-functionally
  with product, frontend and mobile to design and implement a clear API for public release. I also
  expanded existing trading functionality to correctly handle multiple share classes. (Java, MySQL)
- College Savings Plan (529): I worked closely with third parties to develop new integrations and architected numerous subsystems with an emphasis on fault-tolerant, well-monitored design. I also built an integration-testing framework used by the entire team. (Java, MySQL)
- I architected and guided the implementation of four intern projects that included real-time exception attribution via Git and the calculation of our management fees with Spark. (Java, Spark)

## **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

• Languages & Technologies: Python (PyTorch, SciKitLearn, HuggingFace, DeepSpeed, vllm), Kaldi, Ruby, Java (Guice, Hibernate), MongoDB, MySQL, Postgres, Javascript (React), Elasticsearch