# Amanda Stent pioneers responsible generative AI integration at Bloomberg for finance



Amanda Stent stands at the forefront of artificial intelligence advancements at Bloomberg, drawing on a rich career that began in the early days of natural language processing (NLP). With a PhD focused on NLP from the University of Rochester, completed in 2001, Stent has cultivated a unique expertise that positions her as a leader in this rapidly evolving field. Reflecting on her journey, she quips, “Someone quite notable once said to me, ‘You have been doing AI for a very, very, very long time’ – that’s three verys,” showcasing her long-standing commitment to AI research even before it gained widespread popularity.

In her early career at AT&T, Stent was part of pioneering efforts in speech and language processing, working on “computational journalism." This initiative sought to automate the process of generating news articles from structured data, such as stock price changes, well ahead of the generative AI boom that is shaping industries today. The concept of leveraging AI to create journalistic content reflects a visionary approach to technology that Stent carried with her through subsequent roles at Yahoo Labs and, ultimately, Bloomberg.

Upon her return to Bloomberg in 2016 as head of AI strategy and research, Stent encountered a company well-acquainted with AI, having utilised the technology since 2009. At that time, Bloomberg was ahead of the curve, offering clients sentiment analysis tools that provided insights into market behaviours—reflecting Stent's belief that AI technologies must serve practical client needs. Presently, her focus has shifted significantly towards generative AI, which she describes as crucial for generating actionable insights from three categories of data: structured (like price time series), unstructured (including news and research), and communications data. In her words, “Our focus these days… is on GenAI and how we can make the most effective use of it to solve real client problems.”

One specific application of generative AI that has gained traction is the summarisation of earnings call transcripts, allowing clients to access critical information efficiently. These summaries adhere to specific themes of interest identified by subject matter experts at Bloomberg, ensuring that clients receive bespoke insights without the need for exhaustive questioning. Stent emphasises the importance of “transparent attribution,” which allows clients to trace back the generated insights to their original context in the earnings calls.

However, as generative AI becomes more integral to financial services, so too do the risks associated with its use. Stent warns of the phenomenon often referred to as "AI hallucinations," where the technology may create false information or misrepresent data. This is particularly concerning in finance, where decision-making relies heavily on accuracy. Stent asserts, “You need to make sure that you are identifying the source or the provenance of the information the GenAI is using.” Ensuring objective outputs from AI systems is essential, especially as these technologies evolve to better integrate into human decision-making processes.

Stent’s insights are crucial as financial institutions grapple with harnessing AI’s potential, while ensuring ethical practices and transparency. She stresses the necessity of interdisciplinary collaboration and a diverse technological workforce to address the complex challenges posed by AI in finance. As Stent aptly puts it, “It affects everybody today, and we should all be informed and critical users,” reflecting a broader call for awareness not just among AI engineers, but across all sectors affected by these transformative technologies.

Despite her impressive achievements and deep expertise, Stent continues to actively engage with the academic community, advocating for diversity in the tech industry and the ethical implications of AI research. Her participation in conferences and collaborations highlights the importance of maintaining an informed dialogue in the AI community, inspiring the next generation of engineers and leaders in this pivotal field.

As AI continues to evolve, leaders like Amanda Stent are redefining its integration into not only the financial world but also the broader societal context, paving the way for responsible and informed use of advanced technologies.

### Reference Map

1. Lead article
2. Related context on Stent's advocacy for NLP and machine learning
3. Insights on Bloomberg's research publications
4. Reflections on AI's evolution from academia to industry
5. Exploration of ethical considerations in NLP
6. Overview of financial text analytics techniques
7. Best practices in managing data annotation projects

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.computerweekly.com/news/366623777/Interview-Amanda-Stent-head-of-AI-strategy-and-research-Bloomberg> - Please view link - unable to able to access data
2. <https://www.bloomberg.com/company/stories/conversation-natural-language-processing-bloomberg-researcher-amanda-stent/> - In this 2017 interview, Amanda Stent, a researcher at Bloomberg, discusses the importance of engaging with the NLP community at conferences like WSDM and ACL. She highlights Bloomberg's initiatives to promote NLP and machine learning, including the development of a Data Science Speaker Series and the Bloomberg Data Science Research Grant Program. Stent also addresses challenges in NLP, such as handling unique language in the financial industry and the need for speed in financial text analytics. She emphasizes the significance of diversity in the tech industry and shares her experiences as a female computer scientist at Bloomberg.
3. <https://www.bloomberg.com/company/stories/nlp-researchers-engineers-bloombergs-ai-group-cto-office-publish-8-papers-acl-2019/> - In 2019, researchers from Bloomberg's AI Group and Office of the CTO presented eight papers at the Association for Computational Linguistics (ACL) conference. One notable paper, co-authored by Amanda Stent, examines how the language used by financial analysts during earnings calls can indicate their pre-call bullishness or bearishness about a company and their post-call decisions about company price targets. This research highlights the application of NLP in understanding financial analysts' decision-making processes.
4. <https://www.rochester.edu/newscenter/amanda-stent-bloomberg-artificial-intelligence-industry-academia-636112/> - This article profiles Amanda Stent, a University of Rochester alumna, who serves as the Head of AI Strategy & Research in Bloomberg's Office of the CTO. Stent reflects on the state of artificial intelligence, discussing the evolution of AI from her time as a computer science PhD student to her current role. She emphasizes the importance of interdisciplinary collaboration in AI and shares insights into the challenges and future directions of AI research in both industry and academia.
5. <https://www.bloomberg.com/company/stories/bloombergs-amanda-stent-natural-language-processing-research-ethics/> - In this 2018 interview, Amanda Stent, a Natural Language Processing (NLP) Architect at Bloomberg, discusses her role as program co-chair for the 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL HLT). She outlines her goals for the conference, including increasing reviewer diversity and improving the quality of reviews. Stent also addresses ethical considerations in NLP, emphasizing the need for informed consent and ethical data sharing practices in the research community.
6. <https://talks.cs.umd.edu/talks/1830> - In this 2017 talk, Amanda Stent, an NLP architect at Bloomberg, presents a case study on text analytics in finance. She provides an overview of NLP techniques used in text analytics and discusses the NLP platform developed at Bloomberg, including example applications. Stent also compares NLP for financial text analytics with traditional NLP research, highlighting similarities and differences, and offers insights into productive NLP work in the financial sector.
7. <https://arxiv.org/abs/2009.11654> - This 2020 paper, co-authored by Amanda Stent, Tina Tseng, and Domenic Maida, discusses best practices for managing data annotation projects. Annotation is crucial for modern machine learning, and Bloomberg has extensive experience in annotation at scale. The report captures insights from over 30 experienced annotation project managers in Bloomberg's Global Data department, providing valuable guidance for applied annotation projects.