This application does not have a hook and instead dives into the thesis statement for their application.

Goal is clear

Claim of the CER format are clearly stated and are supported by paragraphs below

Sections like this are not required and uncommon, but can be helpful for readers

This applicant statement provides more technical background than most; however, this expertise has direct field-specific relevance to their proposed role in government later in the statement. Such an approach is valuable if your research is directly applicable to government work (rarer) rather than a more general basis for your interest / expertise area.

Evidence (two paragraphs above) and reasoning

Bridge to STPF relevance; stresses applicant value to the STPF

Mirror program criteria: leadership

Applicant Statement (7000 Character Limit)

#

Since graduate school, I have been looking for socially impactful ways to fuse my two main skill sets: artificial intelligence (AI) and science communication. I believe this pairing of skills makes me an excellent fit for the STPF, and my career goals make it an excellent fit for me.

On the first count, I bring expertise in AI, a topic whose centrality to society and policy grows by the day. My science communication experience means I am also comfortable connecting scientific concepts to their practical implications.

On the second count, the STPF will allow me to explore paths in science policy—a field that promises the combination of knowledge application and impact that I am seeking.

Background and Qualifications

My technical expertise is in computer science, particularly natural language processing (NLP)—the subfield of artificial intelligence dealing with text and speech. I worked in three NLP labs as an MIT undergraduate, and I have done two NLP internships at Google. NLP was also the subject of my Ph.D. work at Carnegie Mellon University (CMU).

My thesis project aimed to automatically extract cause-and-effect relationships from text, which could improve many forms of automated question-answering and research support. The first step was annotation: I designed a formal scheme for marking up causal language, then supervised the annotation of dozens of documents using this scheme. That corpus served as input to the second step: computational modeling. I used my dataset to design, train, and evaluate machine learning systems that automatically tag causes and effects in text.

Similar themes now permeate my research at Elemental Cognition. The company is building a system that understands what it reads far more deeply than previous approaches. One of my roles is to rigorously define what that comprehension should entail, especially what causal explanations should look like, and to turn the resulting standards into an evaluation dataset.

Thanks to these experiences, I am comfortable analyzing how state-of-the-art AI techniques work, what aspects are novel, and what pitfalls they are likely to face. I am intimately familiar with dataset development. And given a dataset, I can select and apply machine learning techniques to make predictions about new data. All these skills are highly relevant to government decision-making around science and technology.

But I have not been content with technical work alone. At CMU, I co-founded Public Communication for Researchers (PCR), an organization that helps graduate students develop their public communication skills. Ever since, I have been

immersed in science communication training. I have organized, developed, and delivered workshops for audiences including PCR, ComSciCon (a national conference for graduate students), the AAAS Annual Meeting, and even CMU faculty. I am now an active member of the nascent SciComm Trainers Network (SCTN).

Mirror program criteria: communication

This work ultimately led me to the MIT Communication Lab, which trains engineering graduate students to be communication coaches for their peers. After my Ph.D., I began working with the "Comm Lab" half-time (now down to one day a week) to develop and refine the trainings for our coaches.

Mirror program criteria: communication

CER structure, with the claim & evidence in this paragraph and the summative reasoning in the next

In addition to training others, I am a science communicator myself. I began freelancing as a Ph.D. student, then did a AAAS Mass Media Fellowship at Scientific American, where I wrote 11 in-depth pieces about topics such as optical computing, cryptocurrencies, and particle physics. Immediately post-Ph.D., I wrote professionally half-time—a mix of think tank-supported reporting on self-driving cars and freelancing. I continue to write at Elemental Cognition, where I draft academic papers, blog posts, and whitepapers and help coordinate our PR strategy. I occasionally still freelance, as well.

Don't forget to copy-edit for spelling & grammar!

Ethos as a clear communicator relevant in a policy context

These projects have honed a broad suite of communication skills. It is now second nature to craft and deliver high-quality presentations, and editors and readers alike have thanked me for my clear prose. I am particularly adept at breaking down complex technical topics for both experts and nonexperts.

Mirror program criteria: leadership Also reflects familiarity with skill valuable in policy work

Both halves of my work history have also left me with experience in organizational strategy. Volunteering with PCR, ComSciCon, and SCTN involved launching new programs, inter-organizational collaboration, and strategic planning. At the Comm Lab, I taught strategic planning workshops for non-MIT staff starting Comm Lab-like programs at their own institutions. And at Elemental Cognition, I am investigating potential applications of the core technology, which means weighing its opportunities and limitations in the context of the company's broader strategy. All these skills complement my technical background to make me a valuable and flexible employee.

Bridge to STPF relevance; stresses applicant value to the STPF

Vision for the Fellowship and Beyond

Answers the question: Why AAAS STPF?

The STPF offers a compelling trifecta: it would draw on both my technical expertise and my communication abilities, all for a mission with immense social impact.

Understanding of a policy challenge and their own skillset's relevance to the problem

I would love to put my skills to work on researching, writing, and/or implementing recommendations about AI regulation. AI's ever-growing role in society has left technologists, citizens, and policymakers justifiably worried about social harms, and well-tailored regulation could make a crucial difference.

Mirror program criteria: flexibility & openness

I would be equally excited to help identify and anticipate the impacts of AI and other forms of automation on the workforce and on specific industries. Such analysis demands a realistic understanding of what computers can and cannot do.

Confidence without arrogance

A third area of interest is cybersecurity—both agencies' implementations of it and national policies about it. While no expert, I have a solid foundation in the topic from my computer science training, personal projects, and science writing. Like AI, cybersecurity has wide-ranging implications in intelligence, law enforcement, communications law, free speech, and more.

Pragmatic outlook of skillset; provides specific placement knowledge

Practically speaking, my technical expertise could help a technology-focused agency like NIST or NSF research and develop standards and recommendations. My organizational experience might be of use in joining or convening interagency working groups on shared frameworks and best practices. I would also be well-positioned to help agencies make internal decisions about what technologies to adopt or develop. Naturally, I would be most helpful on AI topics, but I would be comfortable digging into any tech-adjacent issue.

Mirror program criteria: flexibility & openness

Answers the question: How would the STPF support the applicant's growth?

Beyond the fellowship, I plan to shift my career toward public service—possibly into technology policy. The STPF will facilitate that by connecting me with a wide world of relevant people and organizations. It will help me better understand the landscape of roles, particularly in government, that could make good use of my background. It will also show me how large, well-established organizations operate, which will position me well for future leadership. In short, it will both make excellent use of my skills and set me up to find more such roles in the future.