

Exploring how to Mitigate Algorithmic Bias in AI-driven Automated Hiring Systems
(STS Research Paper)

A Detailed Review of Summer Internship Experience at Deloitte
(Capstone)

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

My thesis explores two critical aspects of technology and its impact on modern systems. My technical capstone reflects on my summer internship at Deloitte, where I contributed to a healthcare system modernization project while also developing an AI-driven tool for automating property claim verifications. These experiences provided insights into leveraging technical expertise within consulting practices to deliver client solutions.

Simultaneously, my STS research paper investigates algorithmic bias in AI-powered hiring systems. This research focuses on mitigating the inherent biases that often permeate systems by using Actor-Network Theory (ANT) to examine the interactions between human and non-human actors in hiring processes. The research proposes that integrating human oversight with AI tools can form feedback loops to reduce bias.

Together, these projects form a shared theme of exploring how technology can transform and improve real-world systems. My internship highlighted the practical implementation of AI in corporate environments, while my STS research delved into the ethical and societal challenges that arise from its use. These experiences have helped me understand the importance of balancing human and technological inputs to address challenges and create impactful solutions across industries.

Summary of Experience as Summer Intern at Deloitte

My capstone delves into my experiences at Deloitte as a Computer Science Consulting Intern, where I applied my technical skills to enhance the quality of a healthcare system application. To achieve this, I applied testing methodologies within a team tasked with developing a modernized healthcare platform for a client. The responsibilities included

identifying and addressing defects, validating testing processes, and improving defect reporting. I also contributed to the development of an AI- driven tool used for automating property claim verifications. These experiences strengthened my technical skills as well as deepened my understanding of the depth of the consulting world. The internship was able to allow me to experience the combination of my technical expertise with consulting practices and when combined successfully, I saw that they can bring meaningful improvements in client work. Looking ahead, I am eager to explore the intersection of these two worlds more fully, with a focus on the entire consulting lifecycle, allowing me to see meaningful solutions to client work within diverse teams.

Summary of Mitigating Algorithmic Bias

The increasing reliance on AI-powered hiring systems has raised significant concerns about algorithmic bias which can unfairly disadvantage candidates. My STS research aims to dive into the question: How can algorithmic bias in AI-powered hiring systems be mitigated? Using Actor-Network Theory (ANT), this study examines the complex interactions between human and non-human actors within these hiring systems. ANT provides a framework to understand how AI tools and human recruiters can collaborate to reduce bias and improve hiring practices. Through this research, it is expected to find that integrating human supervision with AI tools can create effective feedback loops that reduce bias. This integration leverages the efficiency of AI while also ensuring fairness through human oversight. The significance of this research lies in its potential to assist in the development of more equitable AI-driven hiring practices which can transform the future of the workforce to be more diverse and fair. In the context of STS, the research demonstrates how technological systems and human actors can work together to address ethical challenges in automated hiring processes.

Conclusion

Working on both the STS research paper on mitigating algorithmic bias in AI-powered hiring systems and my internship at Deloitte has provided me with a unique perspective on the current and future state of the job market. The hands-on experience at Deloitte allowed me to witness real-world applications of AI which gave me a deeper understanding of the extent of how much it is used. By observing the implementation and outcomes of AI tools in a corporate environment, I was able to put into use the theoretical frameworks and concepts that I explored in my research. Lastly, working on both projects taught me the importance of balancing the many actors in a system as described in the Actor-Network Theory. The STS research emphasized the significance of human and non-human actors' interactions which I could directly apply to my internship tasks, especially when using AI to help me with tasks that I could communicate with my team members.