PERSONAL STATEMENT

Adedeji Adediran's aspiration to embark on a journey towards a combined M.S./Ph.D. program in Computer Science at Columbia University is deeply rooted in his unwavering ardor for technology and his unshakable belief in the transformative potential of education and research. His upbringing in a remote region of Nigeria, where opportunities for advancement were limited, instilled in him vital qualities such as resilience, adaptability, and resourcefulness, all of which are pivotal for success in this demanding program. These attributes have empowered him to surmount obstacles and devise innovative solutions, a testament to his innate ingenuity.

Adedeji's personal odyssey has cultivated his unwavering determination to harness computer science as a catalyst for global progress. His formative years exposed him to the potential of technology as a driver of positive change. Motivated by futuristic portrayals of advanced technology in cinema, Adedeji recognizes the immense possibilities that computer science holds for driving societal transformation. This inspiration fueled his unwavering commitment to pursuing a career in the field.

A pivotal turning point in Adedeji's educational journey occurred when he enrolled in the computer science program with an economics focus at Obafemi Awolowo University (OAU). At OAU, he was granted the opportunity to delve into the practical applications of artificial intelligence, particularly evident in courses like "Introduction to Artificial Intelligence." One particularly notable class project involved the modeling of ant movement using Python, offering invaluable insights into replicating natural mechanisms through programming. This experience further ignited Adedeji's inspiration as he realized the potential for similar principles to be employed in developing innovative solutions, such as sensor-driven robotic vacuums. Adedeji's ability to bridge the gap between theoretical

knowledge and practical application underscores his aptitude for connecting research with problem-solving.

Throughout this program, Adedeji's central focus will be on the captivating realm of artificial intelligence as it intersects with advanced statistical methodologies, holding immense promise for addressing multifaceted challenges, reshaping industries, and fostering innovation. Post-program, Adedeji's primary mission will be to advance the field through academic instruction and cutting-edge research. With fervent enthusiasm, he anticipates actively contributing to ongoing research initiatives, engaging in advanced coursework, and harnessing Columbia's state-of-the-art research infrastructure and collaborative milieu to deepen his mastery of these transformative disciplines. His aspirations encompass unraveling the intricacies of deep learning, perception, and manipulation, while innovating novel statistical algorithms within the sphere of artificial intelligence.

Adedeji envisions spearheading foundational research in artificial intelligence with a specific emphasis on the core facets of social interaction within AI systems, including perception and manipulation. Recent studies by Li et al. (2022) and Ma and Xiao (2023) underscore the evolving landscape of social interactions, extending from human-human interactions to human-robot interactions. While the latter falls under the domain of artificial intelligence, the central challenge extends beyond imparting speech to robots – it lies in fostering a profound understanding of meanings and the intricate nuances of our real-world milieu (Bamdale et al., 2019). Andronie et al. (2022) affirm that robots leverage perception technologies, deep learning frameworks, and integrated sensory data to engage in social interactions. Additionally, Huang et al. (2022) emphasize the significance of training robots using extensive datasets to formulate adaptable algorithms for effective human-robot interactions.

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In addressing the variance in perception and manipulation that influences social interactions among robots, the recommendations set forth by Li et al. (2022) and Shah et al. (2022) illuminate the path for future exploration in human-robot interaction. Adedeji envisions collaborating with diverse cohorts at Columbia to scrutinize these variations. Drawing upon the insights of Łukasik et al. (2021), he aspires to forge or collaborate with interdisciplinary research collectives to undertake comprehensive studies on human-robot interactions. Backed by a profound comprehension of big data technologies, fundamental principles of computer science, and advanced statistical methodologies, Adedeji is resolute in his capacity to lead teams and catalyze transformative initiatives within the realm of social interactions within artificial intelligence.

Furthermore, Adedeji acknowledges the power of diverse perspectives in driving innovation and fostering a just community. He is acutely aware of the underrepresentation of marginalized groups within the tech sphere and often assumes the role of the sole African-American contributor, infusing teams with a much-needed diverse viewpoint. Adedeji passionately asserts that Columbia's comprehensive approach and concerted efforts to enhance diversity within its academic ranks are instrumental in shaping a technologically advanced world that is socially conscientious. In addition, he champions the development of AI solutions that prioritize inclusivity.

Currently, Adedeji occupies a prominent role at Visa, where he voluntarily serves as a Diversity, Equity, and Inclusion pillar lead. Since joining the company, he has actively collaborated with senior leadership to establish processes and procedures that promote a more inclusive work environment. One notable initiative involved working with multiple stakeholders to create a bi-annual training module aimed at raising awareness among Visa employees about the importance of inclusion in the hiring process. The implementation of this module has resulted in substantial changes in Visa's hiring practices, with employee

engagement surveys indicating increased awareness among Visa employees regarding potential biases during the hiring process.

Adedeji's alignment with Columbia University's values and objectives, emphasizing academic excellence and intellectual inquiry, positions him to contribute significantly to computer science research. His belief in the transformative potential of artificial intelligence aligns with Columbia's mission to bridge societal divides. Adedeji is eager to leverage the university's innovative environment, dedication to public service, and extensive resources to develop AI solutions with a global impact, fostering positive changes in local and global communities.

In essence, Adedeji Adediran's pursuit of a combined M.S./Ph.D. in Computer Science at Columbia University signifies the convergence of personal passion, educational growth, and professional experience, all driven by a vision to leverage technology for societal improvement. His dedication to AI research aims to enrich Columbia's intellectual community and develop globally impactful solutions. Adedeji's choice is propelled by his profound passion for technology, commitment to global betterment, and unwavering dedication to diversity, inclusion, and social responsibility, aligning seamlessly with Columbia's values.

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