## AMAN ZAVERI

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## Dear Hiring Manager,

I am writing to express my enthusiastic interest in the Backend Compiler Engineering Intern position at Cerebras Systems, as advertised through the University of Waterloo's CO-OP program. The opportunity to contribute to cutting-edge solutions for AI computing, particularly within a company pushing the boundaries of parallel and distributed architectures, deeply resonates with my academic background and professional experiences.

My work architecting a route-aware fuel optimization widget using a graph-ranking engine in Kotlin and Java directly aligns with the role's emphasis on graph semantics and intermediate representations. This project demonstrated my ability to optimize mappings of computation graphs, resulting in a significant 40% increase in recommendation accuracy for in-vehicle navigation. Furthermore, my experience enhancing over 30 data handlers through async queues and lock-free buffers, boosting throughput by 45%, showcases my solid understanding of system design and my ability to implement novel program analysis and optimization techniques.

I am also eager to leverage my proficiency in both Python and C++ to contribute to the design and implementation of custom system tools, potentially even linkers, for Cerebras' unique architecture with a massive number of compute nodes. The chance to apply my knowledge of data structures, algorithms, and distributed systems in a real-world setting at Cerebras Systems would be an invaluable learning experience. I am confident that my skills and enthusiasm make me a strong candidate for this internship.

Thank you for considering my application. I look forward to hearing from you soon.

Aman Zaveri