

AMAN ZAVERI

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Dear Hiring Manager,

I am writing to express my enthusiastic interest in the AI Compute Kernel Engineering Intern position at Cerebras Systems. The opportunity to contribute to the development of cutting-edge hardware and software solutions for AI and HPC, as described in the job posting, deeply resonates with my passion for optimizing performance-critical systems.

My experience in developing and optimizing kernels aligns directly with the responsibilities of this role. For example, I architected a route-aware fuel optimization widget using Kotlin and Java with a graph-ranking engine, resulting in a 40% increase in recommendation accuracy for in-vehicle navigation. This demonstrates my ability to design, implement, and validate high-performance algorithms, skills I am eager to apply to the Cerebras WSE System. Furthermore, I engineered a tire-pressure system in C++ via HAL and AIDL with sub-second alerts and 99% reliability. This experience honed my low-level programming skills, debugging abilities, and understanding of hardware architecture, all of which are crucial for kernel development.

I am also proficient in Python and possess experience with parallel algorithms and distributed memory systems, as highlighted by my work enhancing over 30 data handlers through async queues and lock-free buffers, which boosted throughput by 45%. My experience with performance analysis and optimization, combined with my familiarity with machine learning frameworks like TensorFlow and PyTorch, will allow me to quickly contribute to your team's efforts in maximizing hardware utilization and accelerating deep learning training. I am particularly excited by the prospect of interacting with chip and system architects to optimize instruction sets and microarchitecture.

I am confident that my skills and experience make me a strong candidate for this internship. I am eager to learn more about the AI Compute Kernel Engineering Intern position and how I can contribute to Cerebras Systems' innovative work.

Aman Zaveri