Dear Hiring Team,

I am writing to express my strong interest in the CPU Microarchitecture and Logic Design roles at Ahead Computing. As a soon-to-be MS graduate in Electrical and Computer Engineering from Georgia Tech, I have cultivated a strong expertise in computer architecture and logic design, and I am excited to apply my skills to contribute to your team's innovative work in CPU technology.

During my experience at Samsung Austin R&D Center, I worked with GPU RTL Design wherein I implemented a feature in their next-gen chip and used System Verilog Assertions for critical interface timing, to help synchronization and detect power-related bugs in GPU architecture. I also worked as an RTL Design Intern at Intel Bangalore, I was tasked with writing C code for performance evaluation of CPUs load/store and simulating it on a Verilog platform.

To further add, I have also engaged in several computer architecture projects that have deepened my understanding of processor design. For example, I developed a superscalar pipeline with branch prediction in C++, implementing data dependency tracking, data forwarding, and related stalls. In addition, I designed and implemented a multi-level cache system and DRAM.

Highlights from my background include:

- Deep understanding of computer architecture principles, including instruction set architectures (ISA), pipelining, caching, and memory systems.

- Proficiency in Verilog for RTL design and logic implementation.

I am confident that my academic background, industry experience, and personal projects have equipped me with the skills and knowledge necessary to excel in this role and contribute meaningfully to Ahead Computing's success. PFA my resume for your perusal.

Thank you for considering my application. I am eager to discuss how my skills and experience can benefit your team.

Sincerely,

Adithi

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