

Hello Careers@ AheadComputing,

Dear Hiring Team,

I hope this message finds you well. I am writing to express my interest in the

Senior CPU Microarchitecture & Logic Design - Execution Unit

role at Ahead Computing. After reviewing the job description, I am confident that my extensive experience and skills align closely with the requirements and responsibilities of this position.

With over a decade of experience in hardware engineering, particularly in Custom Accelerator Design, Micro-architecture, and NPU Architecture, I have developed a strong expertise in designing and optimizing high-performance computing systems. My current role as a Deep Learning Hardware Engineer at Intel has provided me with comprehensive experience in IEEE754 floating point numeric and implementing Power, Performance, and Area (PPA) optimizations.

Some key highlights from my career that demonstrate my suitability for this role include:

Micro-architecture and Custom Silicon Design:

I have a proven track record of architecting and developing custom silicon solutions, including NPU IP for Intel's client products. My PhD dissertation focused on FPGA-based accelerator design, further showcasing my deep understanding of high-performance architecture.

PPA Optimization:

My work has resulted in significant improvements in power efficiency, including enhancing the power efficiency of the NPUs central Data Processing Unit by 20% through optimal data type selection and configuration-related optimizations.

Performance and Functional Modeling:

My experience in pioneering functional models, evaluating performance metrics, and prototyping RTL designs has equipped me with the skills (like Verilog simulators, waveform viewers, linting tools, logic synthesis, and place-and-route) necessary to conduct thorough performance analysis and make informed architectural trade-offs.

Cross-functional Leadership:

I have led cross-functional initiatives involving RTL, Modeling, Validation, and Compiler teams, integrating cutting-edge features into NPU IP and authoring high-level architecture specifications for future generations.

I am particularly excited about the opportunity to contribute to Ahead Computings innovative RISC-V core and collaborate with a team dedicated to advancing CPU microarchitecture. Attached is my resume for your review.

Thank you for considering my application. I look forward to the possibility of discussing how my background, skills, and experiences align with the needs of your team.

Best regards,

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