

Dear Hiring Manager,

I am excited to apply for the Physical Design Engineer position at AheadComputing. With over seven years of hands-on experience in physical design, complemented by my ongoing Master of Science in Electrical and Computer Engineering at the University of Minnesota, I am eager to contribute my expertise in advanced technology nodes, power, performance, and area (PPA) optimization.

During my tenure at

Synapse Design Automation

, I played a pivotal role in the successful

tape-out of multi-million gate ASIC designs in advanced nodes such as 4nm and 7nm

. My responsibilities encompassed

floorplanning, placement, clock tree synthesis (CTS), and routing

, where I implemented congestion reduction strategies and optimized power delivery networks.

Additionally, I have extensive experience with

static timing analysis (STA), engineering change orders (ECOs), and physical verification (PV)

to ensure high-quality design sign-off. My proficiency in

EDA tools like Synopsys ICC2, PrimeTime, Cadence Innovus, and Genus

, coupled with strong scripting skills in

Python, and TCL

, has enabled me to automate design flows and improve efficiency.

Furthermore, my experience at

Pozibility Technologies and Tata Elxsi

strengthened my expertise in

low-power design methodologies, multi-corner multi-mode (MCMM) constraints, and advanced clock distribution techniques

. I have successfully collaborated with cross-functional teams, including

RTL designers and DFT engineers

, to drive improvements in

timing closure, power efficiency, and area reduction

.

What excites me about this opportunity is the chance to work on cutting-edge

CPU design and optimization at advanced process nodes (5nm, 3nm, or below)

, aligning perfectly with my past experience and research focus. My passion for

physical implementation, automation, and PPA trade-offs

makes me confident that I can contribute meaningfully to your team.

I would welcome the opportunity to discuss how my skills and experience align with your needs.

Thank you for your time and consideration. I look forward to your response.

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Regards,

Sayantan

Graduate Student

University of Minnesota, Twin Cities