



QUINTESSENT

JOB OPENING: High Speed Optical Device Engineer (Experienced Hire)

About us:

Modern computing applications such as large-scale A.I. are bottlenecked by the available data movement bandwidth. The computing infrastructures needed in the future will be even more bandwidth starved due to the pace of growth and proliferation of such applications. Quintessent is developing future-proof connectivity solutions to solve the data movement bottleneck. Our team comprises of technology pioneers and serial entrepreneurs with a long track record of entrepreneurial success at multiple past ventures. We are seeking talented and adventurous individuals to join us on our journey as fellow members of a stellar team.

Employment type: Full time. Hybrid remote or remote work arrangements may be considered.

Responsibilities:

The ideal candidate will have the capability to lead efforts and perform high-speed device design, development, and productization. Core responsibilities include but are not limited to:

- Defining optimized modulator and photodetector designs based on product and technology roadmap targets.
- Performing device design, electrical and optical simulations, mask layout.
- Performing optical transceiver link level simulations and analysis.
- Collaborating with engineering teams to define fabrication processes and test requirements.
- Analyzing wafer-level and die-level test data, performing device and system performance debug.

Qualifications:

- PhD degree in Physics, Applied Physics, Electrical Engineering, or a related field.
- Experience with III-V and/or silicon photonic device and circuit design, simulation, fabrication, and testing.
- Experience with optical simulation methods/software such as film mode matching (FMM), finite difference time domain (FDTD), and beam propagation.
- Experience with computer programming such as Python.
- Experience with programmatic mask layout is strongly preferred.
- Experience with electrical simulation methods/software such as HFSS is desired.
- Experience with high speed electronics such as modulator drivers and TIAs is desired.
- Experience with transceiver design tradeoffs between multiple components in the electronic/photonic domains and transceiver link budget analysis is a plus.
- Experience working with commercial foundries for device and/or PIC fabrication is desired.
- Experience with silicon photonic ring-resonator modulator design is desired.
- Experience with high-speed optical and electrical signal integrity in a transceiver system and sub-systems is desired.
- Excellent communication skills (verbal, written, and presentation).
- Ability to work independently in a fast-paced setting.

For more questions or to apply for the position, contact: hiring@quintessent.com