



QUINTESSENT

JOB OPENING: Semiconductor Laser Engineer (Experienced hire, entry-level considered)

About us:

Communication, not computation, is now the main system level bottleneck in large-scale computing and A.I. applications. Quintessent is developing optical interconnect technology that can be integrated with compute chips to enable massively accelerated and power efficient communication across any distance inside the datacenter. Our future-proof technology stack is rooted in 10+ years of research at UC Santa Barbara, and combines multiple layers of innovation in O-band quantum dot lasers/amplifiers, silicon photonic integrated circuits, and scalable communication architectures. 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

Responsibilities:

Core responsibilities include design, simulation, mask layout, and performance analysis of semiconductor lasers of various levels of complexity from early concept demonstrations to volume product prototyping/manufacturing. The candidate will be interfacing closely with a team of engineers responsible for design, layout, fabrication, test, and reliability.

Qualifications:

- PhD degree in Physics, Applied Physics, Electrical Engineering, or a related field.
- Effective communicator and collaborator.
- Fast learner and problem solver.
- Experience with III-V semiconductor laser design, simulation, fabrication, and testing.
- Experience with simulation methods and tools such as film mode matching (FMM), finite difference time domain (FDTD), time domain traveling wave (TDTW) and transmission/scattering matrix modeling.
- Familiarity with mask layout software and basic computer programming such as Python scripts to automate layout, simulation, and/or data analysis.
- Experience with silicon photonic device design, simulation, fabrication, and testing will be considered an advantage but are not required.

For more questions or to apply for the position, contact: [hiring@quintessent.com](mailto: hiring@quintessent.com)