



## 3D Computer Vision Engineer/Scientist

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**Keywords:** Physically based rendering (PBR), light transport, light field, BRDF, BSDF, participating media, ray tracing, importance sampling, reflectance modeling, bounding volume hierarchy (BVH), spatial sorting, octree, quadtree, voxel.

**Overview.** Quidient seeks a skilled computer engineer/scientist with strong physically based rendering (PBR) experience to join our growing company. You will be able to design, implement and test Quidient Reality™ scene processing algorithms and data structures in C++. You will be a quick thinker with great coding/debugging skills, excellent time-management skills, and strong collaborative skills. Title, compensation (including equity), and relocation expense reimbursement will be commensurate with experience.

### Requirements

- Bachelor's degree or higher in Computer Science or equivalent.
- Proven ability to design, implement and test sophisticated physically based rendering algorithms and data structures in C++, including speedup mechanisms involving spatial sorting and hierarchies.
- 5+ years of experience developing production code on a high-performance team.
- Deep understanding of multithreaded object-oriented code design, implementation, and testing using C++ in the Microsoft Visual Studio development environment.
- Brilliant thinker who can contribute both "inside and outside the box."
- Live near, or be willing to relocate to, our tech center in Columbia, MD. Highly qualified candidates currently living in or moving to remote situations will be considered.

### Preferences

- History of successful delivery of products.
- History of successful leadership of technical teams.
- Record of success in 3D technology companies, including startups.
- Background in high-performance computing, including GPUs, FPGAs a plus.
- Familiarity with Windows, iOS, and Android operating systems; Python (NumPy/SciPy), Ceres.
- Familiarity with hardware design (FPGA programming using VHDL, Verilog or other RTL).

**About Quidient.** Quidient ([www.quidient.com](http://www.quidient.com)) is a 3D imaging technology company with a tech center located in Columbia, MD. We are scientists, engineers, and entrepreneurs who have built some of the most advanced 3D imaging systems in the world. Our mission is to become the world's preferred supplier of scene reconstruction and processing engines for digital devices like smartphones and AR glasses. Our Engines record 3D geometry, materiality, and 2D light flowing in generalized scenes and will enable thousands of applications that will transform the way we live and work. We are partnering with some of the top organizations on the planet. Our culture is open, honest, supportive, decentralized, multicultural, and high-performance.

**Contact Us.** If you are interested in a career with Quidient and feel qualified for the position described, please send your resume in confidence to [brandon.turley@quidient.com](mailto:brandon.turley@quidient.com) or [scott.ackerson@quidient.com](mailto:scott.ackerson@quidient.com). Quidient is an equal opportunity employer. Direct applications only.

