Quidient®

3D Scene Reconstruction Scientist / Engineer

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Keywords: Generalized Scene Reconstruction (GSR), SLAM, bundle adjustment, shape from silhouette, shape from polarization (SfP), shape from X (SfX), light transport, inverse light transport, light field physics, BRDF, BSDF, participating media, ray tracing, optimization, neural imaging, spatial sorting, octree, quadtree, voxel.

Overview. Quidient seeks a skilled computer scientist/engineer with a strong background in scene reconstruction 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.
- 3+ years of experience developing production code, including C++.

Preferences

- Proven ability to design, implement, and test sophisticated 3D scene reconstruction algorithms and data structures in C++, including speedup mechanisms involving spatial sorting and hierarchies.
- Deep understanding of multithreaded object-oriented code design, implementation, and testing using C++ in the Microsoft Visual Studio development environment.
- Experience with radiance fields (e.g., NeRF), SLAM, structure-from-motion (SfM) and/or multiview stereo (MVS) (e.g., COLMAP).
- Background in high-performance computing, including GPUs, FPGAs.
- History of successful delivery of products.
- Record of success in 3D technology companies, including startups.
- Brilliant thinker who can contribute both "inside and outside the box."
- Familiarity with Windows, iOS, and Android operating systems; Python (NumPy/SciPy).
- Live or be willing to relocate near our tech center in Columbia, MD.

About Quidient. Quidient (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 lee.rannals@quidient. Quidient is an equal opportunity employer. Direct applications only.