

# Radford C. Parker

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## EXPERIENCE

### **SMT (previously known as Sportvision)**

*Vice President, Research and Core Engineering*  
*Engineering Manager, Cameras/3D Modeling*  
*Senior Software Engineer*

Fremont, CA  
5/18 – Present  
1/16 – 5/18  
5/15 – 1/16

- Our team focuses on real-time graphics, camera registration, feature recognition, feature tracking, object detection, sensor fusion, bundle adjustment, real-time camera tracking, video stabilization, lidar scanning, photogrammetry, and 3D reconstruction
- We build 3D models, libraries, tests, and applications that serve a wide range of products
- Our products have been utilized for events in tennis, golf, football, baseball, hockey, and American football
- Helped build one of the most accurate systems in the world for making offside decisions in football
- Helped build the first system to track a fully articulating camera in real-time for live broadcast quality mixed reality using only monocular vision

### **Aechelon Technology**

*Computer Vision Engineer*

San Francisco, CA  
4/14 – 4/15

- Worked with artists to design, build, and integrate tools into a production environment
- Projects focused on the topics of machine learning, graph theory, image segmentation, feature detection, feature localization, and filtering
- Major projects concentrated on building complete pipelines for automated offline tree detection and interactive region masking from high resolution aerial imagery

### **ESPN**

*Project Associate Development Engineer*

Bristol, CT  
6/12 – 4/14

- Worked on a research and development team focused on projects that were anywhere from six months to five years ahead of production
- Projects focused on the topics of augmented reality, optical character recognition, tracking, segmentation, numerical optimization, and pose estimation
- Major projects concentrated on real-time camera tracking, augmented reality, free viewpoint video, broadcast video game state detection, and automated highlight generation

### **Georgia Tech Computational Perception Laboratory**

*Graduate Research Assistant*

Atlanta, GA  
8/11 – 5/12

- Worked under the guidance of Irfan Essa on video segmentation and RGB-D research
- Major projects included Microsoft Kinect depth inpainting and video segmentation enhanced with depth and occlusion features

## PATENT

White, Marvin S., Radford Parker, Divya Ramakrishnan, Louis Gentry, and Rand Pendleton. "Multi view camera registration." U.S. Patent Application 15/266,541, filed March 15, 2018.

## SKILLS

Software and Environments: Microsoft Visual Studio, XCode, CMake, Mathcad, Latex, Vim, Git, SVN, Perforce, Meshlab, CloudCompare, Sketchup, Blender, FFmpeg, GIMP, Adobe Photoshop, Adobe Premiere  
Programming Languages: C++, Python, MATLAB, GLSL, Ruby  
Libraries, APIs, SDKs: OpenCV, Qt, Boost, OpenGL, GLEW, GLFW, GLUT, Libav, Intel TBB, Google Ceres Solver, Google Logging, Google Test, Eigen, Intel IPP  
Operating Systems: Microsoft Windows, Linux, Mac OSX

## EDUCATION

**Georgia Institute of Technology**, Atlanta, GA  
Master of Science in Electrical and Computer Engineering with Honors  
**Georgia Institute of Technology**, Atlanta, GA  
Bachelor of Science in Computer Engineering with Honors

1/11 – 5/12  
8/07 – 12/1