

# Radford C. Parker

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## EXPERIENCE

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

Fremont, CA

*Vice President, Research and Core Engineering*

5/18 – Present

- We leverage state-of-the-art techniques to create modular tools that are used by a variety of teams
- Our work often involves tracking, whether it be a person, a ball, or a camera

*Engineering Manager, Cameras/3D Modeling*

1/16 – 5/18

- Our team focused on camera registration, feature recognition, feature tracking, non-linear optimization, sensor fusion, bundle adjustment, real-time camera tracking, video stabilization, lidar scanning, and 3D reconstruction
- We built libraries, applications, and 3D models that serve a wide-range of applications across the company
- Our work has been utilized for events in tennis, golf, soccer, baseball, hockey, and football

*Senior Software Engineer*

5/15 – 1/16

- Worked on the team that created the first system to track a fully articulating camera in real-time for live broadcast quality mixed reality using only monocular vision
- Our application, combined with Sportvision's rendering platform, facilitated deals with ESPN, FOX, and CBS to provide live virtual insertion of the 1st and 10 lines from aerial cameras

### **Aechelon Technology**

San Francisco, CA

*Computer Vision Engineer*

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**

Bristol, CT

*Project Associate Development Engineer*

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**

Atlanta, GA

*Graduate Research Assistant*

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

## 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

1/11 – 5/12

Master of Science in Electrical and Computer Engineering with Honors

**Georgia Institute of Technology**, Atlanta, GA

8/07 – 12/10

Bachelor of Science in Computer Engineering with Honors