

# QANDEEL SAJID

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## EDUCATION:

**University of Southern California**

**Aug. 2013 - Dec. 2015**

M.S. in Computer Science, GPA: 3.40/4.00

**University of Nevada, Reno**

**June 2009 - Aug. 2013**

B.S. in Computer Science and Engineering

With Specialization in Intelligent Systems and Minor in Mathematics, GPA: 3.94/4.00

## EMPLOYMENT:

**Graduate Researcher**

**University of Southern California**

**Aug. 2013 - Jan. 2016**

- Used computational/probabilistic models (e.g. Bayesian, HMMs) for developing efficient robot personalities
- Researched Human-Robot Interaction (HRI) with Dr. Maja Mataric in the Interaction Lab; worked with human subjects in research studies along with various robot platforms (i.e., NAO)
- Helped write and obtain a National Science Foundation (NSF) National Robotics Initiative (NRI) grant
- Mentored undergraduate students; provided outreach tours and events for K-12 classrooms

**Research Internship**

**Na. Inst. of Stds. and Tech. (NIST)**

**Summer 2014, 2015**

- Worked with Dr. Jeremy Marvel on the Collaborative Human-Robot Safety Project
- Investigated various metrics for evaluating the performance of Human-Robot Collaboration in manufacturing

**Research Internship**

**NASA Ames**

**May 2013 - July 2013**

- Evaluated the use of ARM single-board computers in transferring and manipulating Point Cloud data received directly from a Kinect; Worked with BeagleBone, BeagleBoard, Gumstix, OpenNI, Kinect, ROS, and PCL

**Undergraduate Research**

**University of Nevada, Reno**

**Mar. 2011 - May 2013**

- Formed, implemented (C++), and published in a peer-reviewed paper a new discrete multi-robot path planning algorithm that allowed multiple robots to move simultaneously towards their desired destinations
- Employed computer vision and various feature detection and matching algorithms for a NASA funded project on robot localization; gained experience with ARDrones, Android SDK, and Kinects

## LANGUAGES AND TECHNOLOGIES:

*Proficient:* C++, Python, HTML/CSS, Android SDK, Linux/OS X/Windows, Adobe Photoshop, LaTeX

*Novice:* Javascript, Java, Artificial Intelligence, Robotics, and Machine Learning, and Eclipse

*Prior Experience:* JQuery, XML, Clojure, OpenCV, and Open GLSL

## PROJECTS:

- *3D-Renderer (2015):* Implemented a 3D graphics renderer that rendered 3D coordinated of various objects on to the screen. Implemented techniques such as Z-buffering, lighting, and anti-aliasing (C++, Visual Studio)
- *Zillow App: (2015):* Designed an android app that allowed users to search the housing market using Zillow's API (HTML/CSS, Javascript, JQuery, Android SDK, PHP, and Ajax)
- *DESCRY (2013):* Developed, with a team, an Android App designed for General Electronics (GE) that utilized optical character recognition to continuously read and store sensor readings (Android SDK, Java)

## PUBLICATIONS:

- *Q. Sajid*, "Personality-Based Consistent Robot Behavior." In ACM/IEEE International Conference on Human-Robot Interaction (HRI) Pioneers Workshop, March 7<sup>th</sup>, 2016, Christchurch, New Zealand. (to appear)
- *Q. Sajid*, R. Luna, and K. E. Bekris. "Multi-Agent Pathfinding with Simultaneous Execution of Single-Agent Primitives." In the 5th Annual Symposium on Combinatorial Search (SoCS), 2012,
- A. Krontiris, *Q. Sajid*, and K. E. Bekris. "Towards Using Discrete Multiagent Pathfinding to Address Continuous Problems." In the Workshops at the 26th AAAI Conference on Artificial Intelligence, 2012.

## HONORS, AWARDS, AND ACTIVITIES:

- National Physical Science Consortium (NPSC) Fellow, supported by the National Institute of Standards and Technology (NIST), 06/2014-01/2016
- NASA Experimental Program to Stimulate Competitive Research Award, \$6000, 12/2011-06/2012
- Nevada NASA Space Grant Consortium Undergraduate Scholarship, \$5000, 08/2011-05/2012
- Invited to present at the Fifth Annual Symposium on Combinatorial Search conference, 2012